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Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (23 July 1958)

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Dr. Gwilym Owen EVANS (*British Museum (Natural History), London*) (31 May 1960)

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Dr. N. S. BORCHSENIUS (*Institute of Zoology, Academy of Sciences, Leningrad B-164, U.S.S.R.*) (28 September 1961)

Dr. W. E. CHINA (*British Museum (Natural History), London*) (21 May 1962) (*Acting Secretary*)

Prof. E. BINDER (*Museum d'Histoire Naturelle, Geneva, Switzerland*) (21 May 1962)

BULLETIN OF ZOOLOGICAL NOMENCLATURE

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TROCHUS CONCHYLIOPHORUS BORN, 1780, A JUNIOR OBJECTIVE SYNONYM OF *TURBO TROCHIFORMIS* BORN, 1778. Z.N.(S.) 1483

(see volume 19, pages 115–116)

By K. V. W. Palmer (*Paleontological Research Institution, Ithaca, New York, U.S.A.*)

The following data and explanations are presented to establish that *Trochus conchyliophorus* Born, 1780, is a junior objective synonym of *Turbo trochiformis* Born, 1778, and the nominal species *Turbo trochiformis* Born, 1778 by right of priority over *Trochus conchyliophorus* Born, 1780 and over *Xenophora laevigata* Fischer von Waldheim, 1807 is the type-species of *Xenophora* Fischer von Waldheim, 1807.

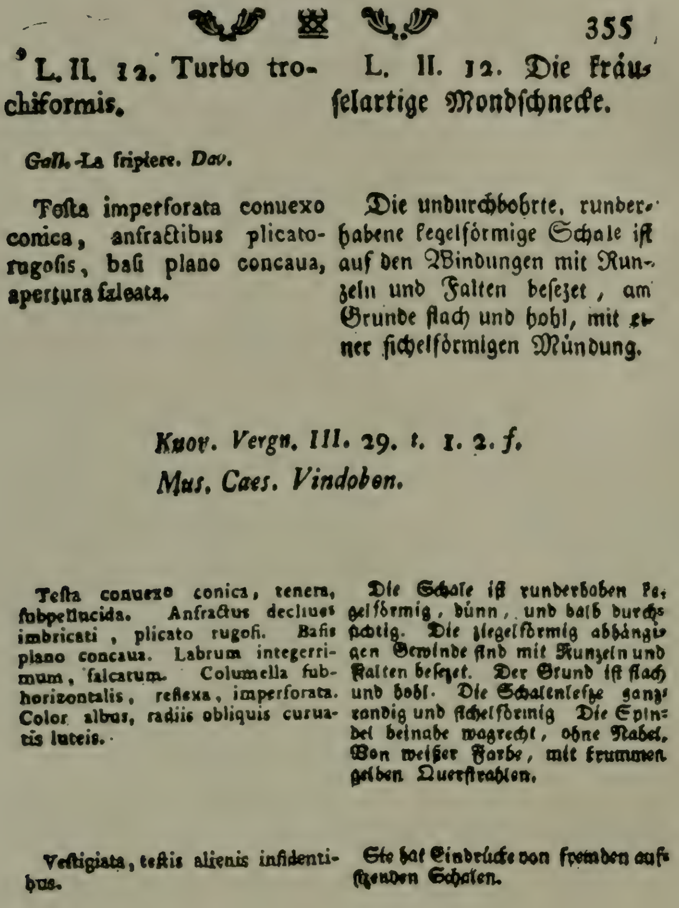
To understand the junior objective synonymy involved in the *Turbo trochiformis* Born, 1778—*Trochus conchyliophorus* Born, 1780 names, one must realize that, the 1778, *Index Rerum Naturalium Musei Caesarei Vindobonensis* was an Index (octavo, 335 pp.) not illustrated. Two years later, 1780, Born published *Testacea Musei Caesarei Vindobonensis* (folio, 442+Index, 18 pls.) illustrated. This second book was an elaborated work of the 1778 book.

To make the discussion and reasoning in regard to the problem clearer, photo copies of the pertinent pages in Born (1778, 1780), Davila (1767) and Knorr, 1768, are reproduced. Quotations from critical early conchologists are included to indicate the universality of definition and use of salient factors involved.

The difference of generic interpretation of *Turbo trochiformis* and consequent specific identification hinges on the contents of its specific description in Born, 1778. Two conflicting references were given in the description of *Turbo trochiformis* by Born in 1778. One refers to Davila, 1767, to description and illustration of a carrier shell designated " La fripiere ", and the other to an illustration in Knorr, 1768 of a non-carrier shell which has no name only, " Eine flache und gerunzelte Krauselschnecke ". The following data are supplied to rationalize the dilemma as to what Born did mean and what leading conchologists have understood him to mean.

To clarify a point in regard to the genus involved, *i.e. Xenophora* Fischer von Waldheim, 1807, and to eliminate repetition, the shell involved, will be referred herein as the *carrier* or *carrier shell*. This is a descriptive term modernly applied to members of the genus, the animal of which cements shells or objects to its upper surface, over all or in part. It has been known from the middle 1760s as *La Fripière, La Maçonne, La Conchyliologie, Sabot d'Amerique chargé d'autres coquillages, Trodlerin, Steinträger, Conchylienträger*, and *draagende tol*, all of which indicate the conspicuously unique habit of the animal in loading or cementing objects to its upper surface.

In Born, 1778, in *Index Rerum Naturalium Musei Caesarei Vindobonensis*, Pars. I, p. 355, *Turbo trochiformis* was proposed by Born but not illustrated (Figure 1, herein). As stated the book was an Index (octavo) as titled and references to literature in the book were given as abbreviations. The Code to the abbreviation of author references was included in the forepart of the book in *Explicatio Citationum Abbreviatarum. Erklarung der angeführten Verkürzungen.*



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L. II. 12. Turbo trochiformis.	**L. II. 12. Die kräuſelartige Mondſchnecke.**
Gall. La fripiere. *Dav.*	
Teſta imperforata conuexo conica, anfractibus plicato-rugoſis, baſi plano concaua, apertura falcata.	Die undurchbohrte, runderhabene kegelförmige Schale iſt auf den Windungen mit Runzeln und Falten beſezet, am Grunde flach und hohl, mit einer ſichelförmigen Mündung.

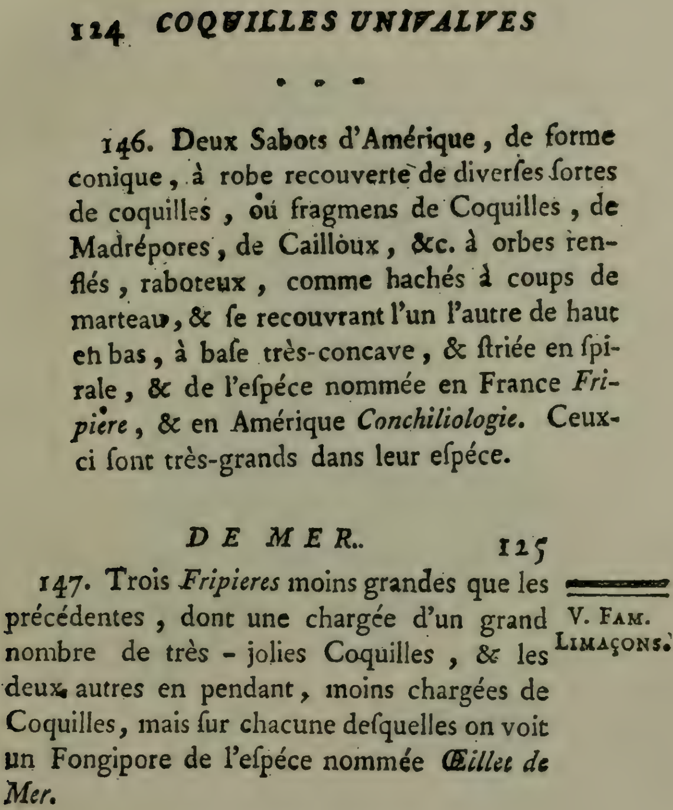
Knor. Vergn. III. 29. t. 1. 2. f.
Mus. Caes. Vindoben.

Teſta conuexo conica, tenera, ſubpellucida. Anfractus decliues imbricati, plicato rugoſi. Baſis plano concaua. Labrum integerrimum, falcatum. Columella ſubhorizontalis, reflexa, imperforata. Color albus, radiis obliquis curuatis luteis.	Die Schale iſt runderhoben kegelförmig, dünn, und halb durchſichtig. Die ziegelförmig abhängigen Gewinde ſind mit Runzeln und Falten beſezet. Der Grund iſt flach und hohl. Die Schalenlefze ganzrandig und ſichelförmig Die Spindel beinahe wagrecht, ohne Nabel. Von weißer Farbe, mit krummen gelben Querſtrahlen.
Veſtigiata, teſtis alienis inſidentibus.	Sie hat Eindrücke von fremden aufſizenden Schalen.

Figure 1. Born, 1778, p. 355.

Original description of *Turbo trochiformis.*

Figure 1, item 1. First reference "*Gall.* La fripiere. *Dav.*" is to Davila Catalogue systematique t. 1, Paris 1776 [1767] as per Born's *Explicatio Citationum Abbreviatarum* in the forepart of the book. The name La fripiere, (La Fripière) was coined from the French word *fripièr* (*ère*), a dealer in old clothes, furniture, broker, trader in worthless articles. Hence *La Fripière* was a picturesque common name used by Davila who employed no scientific names. The term was used by Davila only for carrier-shells as may be translated in the Figures 2 and 3 copied from pages of Davila.



124 *COQUILLES UNIVALVES*

• • •

146. **Deux Sabots d'Amérique**, de forme conique, à robe recouverte de diverſes ſortes de coquilles, où fragmens de Coquilles, de Madrépores, de Cailloux, &c. à orbes renflés, raboteux, comme hachés à coups de marteau, & ſe recouvrant l'un l'autre de haut en bas, à baſe très-concave, & ſtriée en ſpirale, & de l'eſpéce nommée en France *Fripiere*, & en Amérique *Conchiliologie.* Ceux-ci ſont très-grands dans leur eſpéce.

DE MER. 125

147. Trois *Fripieres* moins grandes que les précédentes, dont une chargée d'un grand nombre de très-jolies Coquilles, & les deux autres en pendant, moins chargées de Coquilles, mais ſur chacune deſquelles on voit un Fongipore de l'eſpéce nommée *Œillet de Mer.*

V. Fam.
Limaçons.

Figure 2. Davila, 1767, Catalogue systematique, pp. 124, 125. Description of *Fripiere*, referred to by Born, 1778; 1780.

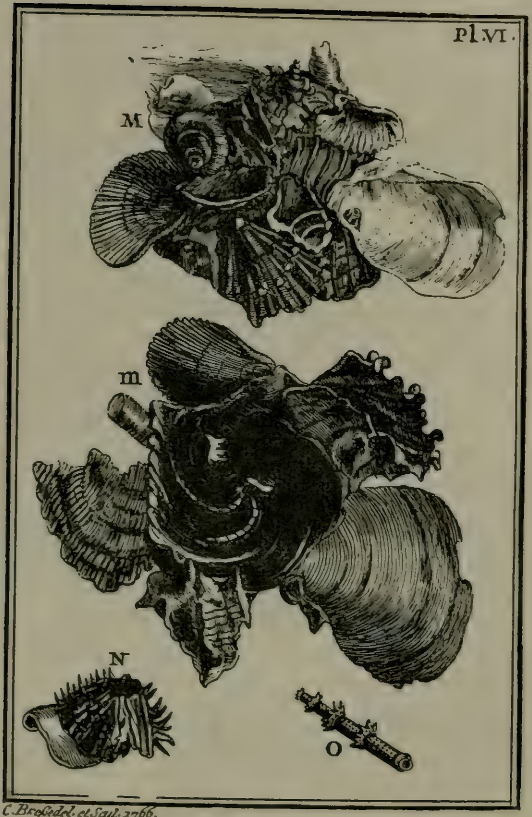

Pl.VI.
M
m
N
O
C.Broſedel. et Sculp. 1766.

Figure 3. Davila, Cat. Syst. 1767.
Illustration of *Fripiere* (Plate VI).
This is a fine illustration of a *carrier*.

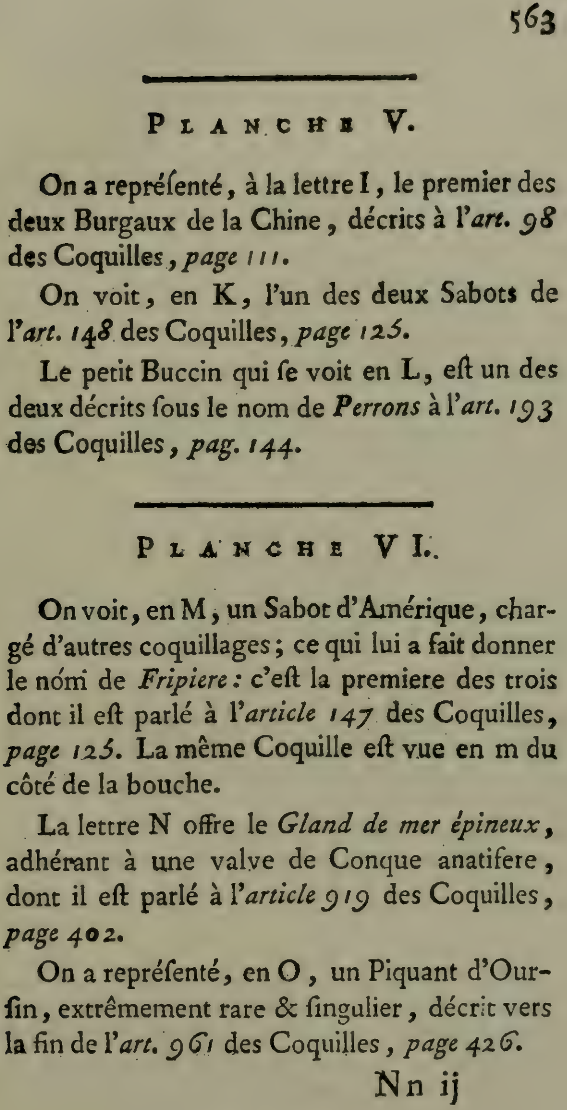


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PLANCHE V.

On a repréſenté, à la lettre I, le premier des deux Burgaux de la Chine, décrits à l'*art. 98* des Coquilles, *page 111.*

On voit, en K, l'un des deux Sabots de l'*art. 148* des Coquilles, *page 125.*

Le petit Buccin qui ſe voit en L, eſt un des deux décrits ſous le nom de ***Perrons*** à l'*art. 193* des Coquilles, *pag. 144.*

PLANCHE VI.

On voit, en M, un Sabot d'Amérique, chargé d'autres coquillages; ce qui lui a fait donner le nom de *Fripiere:* c'eſt la premiere des trois dont il eſt parlé à l'*article 147* des Coquilles, *page 125.* La même Coquille eſt vue en m du côté de la bouche.

La lettre N offre le *Gland de mer épineux*, adhérant à une valve de Conque anatifere, dont il eſt parlé à l'*article 919* des Coquilles, *page 402.*

On a repréſenté, en O, un Piquant d'Ourſin, extrêmement rare & ſingulier, décrit vers la fin de l'*art. 961* des Coquilles, *page 426.*

Nn ij

Davila, Cat. Syst. 1767.
Explanation of plate VI.

The copies of Davila are reproduced to show that Born, 1778, in the use of the reference to Davila *La fripiere* could only mean one kind of shell—a carrier. No other family except that of the xenophorids (except a few isolated cases not known to Born or Davila) covers the shell with other shells or fragments.

To reiterate that *La Fripière* by designation and definition meant only a carrier the following few selections are included.

Chemnitz—1781.

t. 5, tab. 172, fig. 1688, p. 118.

" Der Steinträger. Der Conchylienträger. Die Trödlerin.

" Trochus lithophorus. Trochus Conchyliophorus.

" Gall. La Fripiere. La Conchyliologie. La Maçonne. Sabot d'Amerique chargé autres Coquillages.

" Davila p. 124, No. 146. Sabot d'Amerique . . . de l'espèce nommée en France Fripiere et en Amerique Conchyliologie . . .

" Favart d'Herbigny, vol. 1, p. 256. Conchyliologie ou conchyliophore . . .

" it. vol. 2, p. 49, Fripiere . . .

" it. vol. 2, p. 294, Maconne . . .

" v. Born Index Mus. Caes. p. 355. Turbo trochiformis, testa imperforata vestigiata, testis alienis insidentatus.

" — —— Testacea. Mus. Vindob. p. 333 Trochus conchyliophorus . . . Fav. de Montcervelle Edit 3. Darg. tab. 12. fig. C.^{1} C^2. tom. 2. p. 411 seg.

" La Fripiere conchyliologiste, ou conchyliologique . . ."

Montfort—1810, p. 159

" Le Frippier—Phorus "

LE FRIPPIER

" Le Frippier agglutinant. Phorus agglutinans.

" Toupie porte-coquille. *Trochus conchyliophorus* . . . Trochus lithophorus—*En françois* la frippière, la conchyliologie, la maçonne ; *en allemand*, die trodlerin, conchylientraeger, steintraeger ; *en hollandois*, draagende tol . . . ".

Enc. Meth. Deshayes t. II, p. 145, 1830

" FRIPIER *Phorus*

" Genre établi par Montfort (*Conch. syst. tom.* 2, *pag.* 158) et que rien jusqu'a présent ne justifie. Il a été établi pour ceux des Troques qui ont la singulière faculté d'agglutiner à leur coquille les corps étrangers qui sont dans leur voisinage, et de se cacher ainsi sous des débris éstrangers. *Voyez* Troque."

FRIPIÈRE.

" On donne vulgairement ce nom aux espèces de Troques qui attachent à leur coquille des corps étrangers de toute sorte, de manière a se cacher sous les dépouilles des autres animaux marins. *Voyez* Troque."

BORN, 1778

Figure 1, item 2. This is the first general description of *Turbo trochiformis* Born, 1778. The exact description as seen in this figure is repeated by Born, 1780 for *Trochus conchyliophorus* except the word *plano* in the first description is inserted before *concava.*

Figure 1, item 3. Knor. Vergn. III, 29, t. 1, 2 f. This reference in Born had to be given in more detail than the reference to Davila because there are two works of Knorr cited in Born's *Explicatio Citationum Abbreviatarum.*

The reference 29, *t.* 1, 2 *f* in Knorr is an illustration of a shell which is not a carrier but an unnamed specimen except for a sentence in the Index to Knorr as " Eine flache und gerunzelte Krauselschnecke " under *Trochi* and the description in the text with no name. The shell is a *Calyptraea.* (Figure 4 herein)

BRITISH MUSEUM NATURAL HISTORY

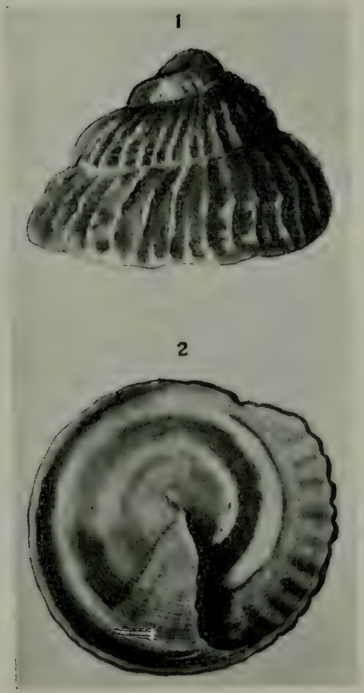


Figure 4. Plate 29, figs. 1, 2. Knorr, 1768.

Figure 1, item 4. Davila, last line, Latin and German columns.

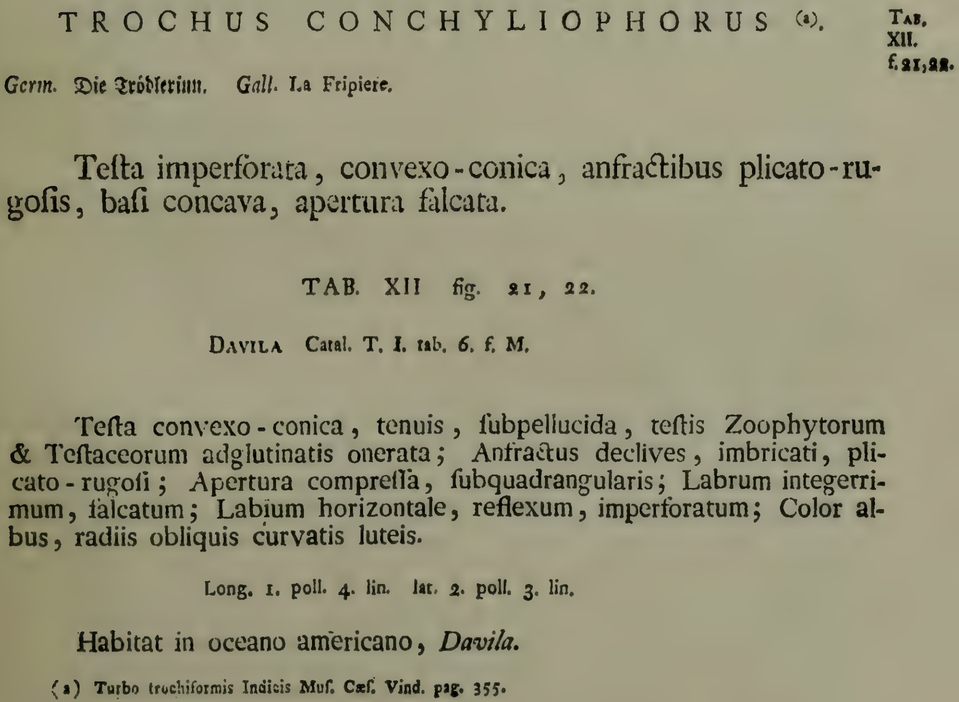
" Vestigiata, testis alienis insidentibus."

" Sie hat Eindrücke von fremden aussitzenden Schalen."

These translated—" Bearing traces of foreign shells, adhering to it." [Latin] So that my translation of those lines (page 355, Born, 1778) could not be taken as a personal interpretation, the lines in Born (1778) were translated by Prof. Harry Caplan, Professor of Classical Languages and Literature, Cornell University. His translation was made without a previous knowledge of the species nor an analysis of the problem. My translation was confirmed by Prof. Caplan who stated that no other interpretation could be made.

It has been intimated that the line " Vestigiata . . . " could refer to the secreted burrows or tracks of a worm. It would be : (a) inconceivable that in a specific description one would include as part of the specific description an extraneous feature made by another animal ; (b) worm tracks would not be confined to any particular species and hence could as well be mentioned in other specific descriptions in the book ; (c) if Born meant the line to indicate worm tracks and used the figure in Knorr (Figure 4 herein), such a feature ought to be on the Knorr illustration, which it is not ; (d) Chemnitz used the line as critical for *T. trochiformis* (see p. 6, herein, line 12).

BORN, 1780



TROCHUS CONCHYLIOPHORUS (a). TAB. XII. f. 21, 22.

Germ. Die Trödlerinn. *Gall.* La Fripiere.

Teſta imperforata, convexo-conica, anfractibus plicato-rugoſis, baſi concava, apertura falcata.

TAB. XII fig. 21, 22.

DAVILA Catal. T. I. tab. 6. f. M.

Teſta convexo-conica, tenuis, ſubpellucida, teſtis Zoophytorum & Teſtaceorum adglutinatis onerata; Anfractus declives, imbricati, plicato-rugoſi; Apertura compreſſa, ſubquadrangularis; Labrum integerrimum, falcatum; Labium horizontale, reflexum, imperforatum; Color albus, radiis obliquis curvatis luteis.

Long. 1. poll. 4. lin. lat. 2. poll. 3. lin.

Habitat in oceano americano, *Davila.*

(a) Turbo trochiformis Indicis Muſ. Cæſ. Vind. pag. 355.

Figure 5. Born, 1780, *Testacea Musei Caesarei Vindobonensis*, page 333.

Figure 5, Item 1—Born marked his new name *Trochus conchyliophorus* (a) with a footnote whereby he indicated that his new name is the same as his 1778 *Turbo trochiformis*.

Item 2—same 1778, except for the word *plano*.

Item 3—La Fripiere (see Davila, Figure 1 herein).

Item 4—Davila Catal. t. 1, tab. 6, f. M. (see Figure 3 herein). This is the same reference as in Born, 1778. This is an indication that Born was giving a new name. This was not an uncommon custom by early writers, as nomenclaturists are well aware ! Chemnitz (1781) used *Trochus lithophorus* ; although Lamarck (1804 ; 1805) originally gave *Trochus agglutinans* for the fossil species of a carrier from the Paris Basin, the name was used by Montfort (1810) and others for the Recent species of Born ; Fischer von Waldheim (1807) in describing the genus *Xenophora* (carrier) coined a new name *X. laevigata* ; and Reeve (1842, 1843) renamed Born's species *Phorus onustus*. All of these authors and others explained their new names were for Born's species.

The interpretation that the two names of Born *Turbo trochiformis*, 1778 and *Trochus conchyliophorus*, 1780 were for the same species has been made by Chemnitz, 1781 ; Dillwyn, 1817 ; P. Fischer, in Kiener 1876 ; Tryon, 1886 ; Theile, 1931 ; Clench & Aguayo, 1943 ; Aguayo & Jaume, 1947. Cossmann, 1888 ; Sacco, 1896 ; Theile, 1931 ; Clench & Aguayo, 1943 and Aguayo & Jaume, 1947 used *Turbo trochiformis* Born, 1778 as the type-species of *Xenophora* Fischer von Waldheim, 1807. They all state or write in synonymatic form—that *Turbo trochiformis* and *Trochus conchyliophorus* were equal. Many authors in general works have used *Trochus conchyliophorus* (*Xenophora conchyliophorus* (Born)), not with any understanding that it was not equivalent to *Turbo trochiformis* but because it was used by the author they copied.

SUMMARY

1. Born, 1778, referred *Turbo trochiformis*, first reference to Davila—La fripiere—a carrier shell, illustrated, and defined as such. I am not using the vernacular name as a term that has any nomenclatural value but it is used to show that Born described and named a specimen which cemented shells or other objects to its surface, a feature not to be confused with any other gastropod. *Fripiere* was defined by Davila and has been specially repeated through conchological literature since Davila's time (1767) by such principal authors as Chemnitz, 1781, Montfort, 1810, Deshayes, 1830, Lamarck, 1822, and others have reiterated the definition.

If one denies the definition of La fripiere in Born, 1778, as meaning a carrier-shell then one must deny the meaning of La Fripiere in Born, 1780, where Born used the same term and illustrated a carrier-shell.

2. Born in 1780 (Figure 5 herein) stated by (a) footnote that *Trochus conchyliophorus* was *Turbo trochiformis*. It has been intimated that the footnote cannot be so construed as meaning that Born gave a new name but that he merely meant a comparison of the two forms. If the footnote were to be construed as a comparison what would be the purpose of comparing a carrier (*Xenophora*) with as distinct a shell as a non-carrier (*Calyptraea*) ?

3. Born in 1780 gave the same reference to Davila for *Trochus conchyliophorus* as he used in 1778 for *Turbo trochiformis* and he called each *La fripiere*.

4. The last line of the description in 1778 for *Turbo trochiformis* is a key to the character of the shell Born was describing, *i.e.* a carrier or one which had foreign shells adhered to it. Therefore, the first and last lines of Born, 1778 clearly indicate that Born was describing a carrier and this carrier he named *Turbo trochiformis*.

5. The second reference in Born, 1778 to Knorr, Vergn. 29 t., 1, 2 f is an illustration of a non-carrier shell. The figure of the base of the shell in Knorr could be confused with the base of a nonumbilicate *Xenophora* (carrier) if one were not too discriminating. The side view of the Knorr figure (a *Calyptraea*) would seem difficult to confuse with a carrier. However, Born did make a *lapsus* in referring his *Turbo trochiformis* to the figure in Knorr 29t, 1, 2 f which is in conflict with the

illustration he gave to the carrier or *La fripiere* in Davila. One point which throws discrediting light on references to Knorr by Born in 1778 is that in the Errata (Born, 1778) Born reported 63 corrections. Twenty-three of these are mistakes in Knorr references. Part of the 63 mistakes are typographical word spelling. There is no other author in Born, 1778, for which he, Born, made so many corrections as for Knorr. There were two corrections to Lister, one for Linnaeus, and seven for Argenville.

6. Usage does not enter into this case. Both names, *Turbo trochiformis* Born, 1778 (*Xenophora*) and *Trochus conchyliophorus* Born, 1780 (*Xenophora*) have been used by authors of descriptive works. Each has been used for the carrier *Xenophora*. The following are some who have used *Turbo trochiformis* : Chemnitz, 1781 and Dillwye, 1817 in equivalency of the two names ; H. and A. Adams, 1856 ; Morch, 1857 ; Vignon, 1923. G. Fischer in Kiener, 1876 ; Tryon, 1886 ; Cossmann, 1888 ; Sacco, 1896 ; Theile, 1931 ; Clench & Aguayo, 1947 ; Aguayo & Jaume, 1947 ; Palmer, 1962 used the taxon as type-species of *Xenophora*.

Some who have used *Trochus conchyliophorus* are : Gmelin, 1791 ; Bolten, 1798 ; Montfort, 1810 (in synonymy of *Phorus agglutinans*) ; Wood, 1828 ; Chenu, 1859 (as *Phorus*) ; Wenz, 1940 ; Habe, 1953 ; Abbott, 1954, 1958 ; Warmke & Abbott, 1961.

7. If Born in 1780, had *not* meant his 1778 *Turbo trochiformis* to be a *Xenophora* or equivalent to his renamed *Trochus conchyliophorus* why did he not list it separately in his descriptive illustrated catalogue (1780) under the generic name which would have stood for a *Calyptraea* in his time, *i.e. Patella* or some such genus ? If he did not mean *Turbo trochiformis* (1778) to be a carrier-shell and to be his renamed *Trochus conchyliophorus* (1780), he, therefore, abandoned the specific name *Turbo trochiformis*, for it is not listed or included in his folio book of 1780 except in the footnote as equivalent to *Trochus conchyliophorus*.

8. An inquiry was sent by me in 1955 to Naturhistorisches Museum, Vienna, to obtain information regarding the type-specimen or specimens of *Turbo trochiformis* Born, 1778, and *Trochus conchyliophorus*, 1780. Dr. Friedrich Bachmayer, paleontologist of the Naturhistorisches Museum, Wien, Austria, carefully made search of collections and literature and wrote me in 1956 the following :

Bitte entschuldigen Sie mir, dass ich erst heute auf Ihre werte Anfrage Antwort geben kann. Wir haben im Museum grosse Renovierungsarbeiten und so verzögerte sich das Nachsehen in unseren Bibliotheks- bzw. Sammlungsbeständen.

Ich habe mich bemüht, den Sachverhalt so gut es geht zu klären. Es ist folgende Situation :

Bei Born (1778) Index rerum naturalium Musei Caesarei Vindobonensis ist auf pag. 355 Turbo trochiformis lateinisch und deutsch beschrieben, allerdings ist keine Abbildung vorhanden. Im 2 Jahre später erschienen Buch : Born (1780) Testacea Musei Caesarei Vindobonensis ist auf pag. 333 Trochus conchyliophorus angeführt—es wird dabei aber die gleiche lateinische Beschreibung angeführt, wie bei Born 1778 (pag. 355). Zu dieser Beschreibung ist auch auf Tafel 12, Fg. 21, 22, eine recht gute färbige Abbildung vorhanden ; (die Abbildung stimmt auch mit den Exemplaren, die sich in der Zoologischen Sammlung befinden, recht gut überein). Das Typus-Exemplar (Born) ist nicht vorhanden ! (Das ist auch im Buche mit Bleistift wahrscheinlich von Frederick Brauer vermerkt).

Wenn man nun das ganze überblickt, so hat bestimmt der Name *Turbo trochiformis* die Priorität. Es ist auch von Born selbst nichts angegeben, was ihn veranlasst hat, eine Namensänderung auf *Trochus conchyliophorus* durchzuführen. Somit müsste eigentlich die Art *Trochus conchyliophorus* als identisch bzw. synonym zu Turbo trochiformis eingezogen worden.

Thiele hat scheinbar auch diesen Standpunkt vertreten und hat diese Form als *Xenophora trochiformis* angeführt.

Ich würde mich freuen, Ihnen mit diesen Angaben gedient zu haben.

PROPOSED DESIGNATION OF NEOTYPE FOR *TURBO TROCHIFORMIS* BORN, 1778—*TROCHUS CONCHYLIOPHORUS* BORN, 1780

By K. V. W. Palmer

(*Paleontological Research Institution, Ithaca, New York, U.S.A.*)

The proposed designation of a neotype for *Turbo trochiformis* Born, 1778—*Trochus conchyliophorus* Born, 1780, is in connection with revisory work of the family-group Xenophoridae for the Treatise of Invertebrate Paleontology and in connection with monographic studies on the fossil Mollusca of the Eocene of southern United States, particularly those of the Ocala group, upper Eocene of Florida. In that fauna several new species of *Xenophora* are abundantly and unusually preserved. I have been investigating the history and problems of nomenclature of the taxa of the family-group Xenophoridae for over seven years in an endeavour to provide all data pertinent to the intricacies involved. The material is in manuscript to be published in Palaeontographica Americana, volume 4, No. 31, as well as in the Treatise of Invertebrate Paleontology.

Because of my inquiries in 1955 to the Naturhistorisches Museum in Wien, Austria (depository of Musei Caesarei Vindobonensis), regarding the original specimen of *Turbo trochiformis* Born, 1778. *Trochus conchyliophorus* Born, 1780, it became known that the type-specimen is not in existence (3 January 1956, per com. F. Bachmayer, see copy of published letter in Palmer, [ZNS 1483] data to Inter. Com. Zool. Nomen.).

Dr. Bachmayer searched the collection upon which Born based his descriptions of 1778 and 1780 and in 1956 wrote that the type was not present. Dr. Bachmayer also stated that the absence was marked by a pencilled note in the book (" Das ist auch im Buche mit Bleistift wahrschienlich von Frederick Brauer vermerkt "), possibly by Brauer, who wrote on the collection in 1878. The conclusion must be that the original shell or shells does or do not exist. There is no other collection in which an original specimen could exist. (Art. 75(c)(3)). No syntypic specimens are found from which a lectotype could be selected (Art. 74).

Dr. Bachmayer (per com. 3 January 1956) wrote that there was a specimen in the zoological collections [Naturhistorisches Museum, Wien] which agrees well with the illustration by Born, 1780, pl. 12, figs. 21, 22. The habitat in Born, 1780 is " Oceano Americano ". Because there is no other living species of *Xenophora s.s.*, in the ocean of America known at the time of Born except the West Atlantic, *X. trochiformis* (Born)—*X. conchyliophorus* (Born), the shell, spoken of by Bachmayer as agreeing with the illustration Born, 1780, pl. 12, figs. 21, 22 and is in the zoological collection in the Naturhistorisches Museum, would satisfy the original type-locality. The illustration in Born, 1780, pl. 12, figs. 21, 22, well displays the characters by which the species could be recognized.

Further verification that the original specimen or specimens of *Turbo trochiformis* Born—(*Trochus conchyliophorus* Born) is or are lost was received from Dr. Oliver E. Paget, Zoologische Abteilung, Naturhistorisches Museum, Wien, Austria (per com. Dec. 13, 1962). To quote from Dr. Paget's letter, " In regard to this [specimens of *Xenophora trochiformis* (Born)] I have to mention that the type-specimen of Born got lost as so many others did during the 200 years of storage here in the Museum . . . You certainly know the paper of Brauer [*Kais. Akad. Wissenschaften*, Math.—natur. Klasse, Sitz., vol. 77, abt. 1, pp. 117–192, 1878] one of my predecessors in this Department and who published the list of ' Born Types ' still present at the Museum in 1878 and at that time quite a number was already missing. And this number increased since 1878 and quite a number of specimens, which Brauer still found in the Collection, are missing."

Six specimens from the Zoological Department, Naturhistorisches Museum, Wien were sent to the writer. One I have selected as neotype and photographs of the shell are shown on Plate 2. The shell measures 40 mm., greatest diameter, without including the extraneous material; 31 mm., height, including cemented fragments on the apex. Besides the fragments of shells and bits of rock cemented to the specimen, there is a well-preserved entire shell of *Conus jaspideus* Gmelin, a complete well-preserved valve of *Anadara notabilis* (Roeding), and a nearly complete valve showing coloration of *Arca zebra* Swainson. These species are typical of the southern Florida-Carribean area, although *A. zebra* extends north to North Carolina. The region indicated is that of the habitat of *Xenophora trochiformis* (Born).

The specimen in the zoological collection of the Naturhistorisches Museum, Wien, Austria, is designated as the neotype because: (1) that Museum contains the collection studied, described, and illustrated by Born, 1778 and 1780 as Musei Caesarei Vindobonensis and hence, a specimen in that Museum would be a proper shell to be so designated, and that Museum would be the appropriate depositary for the type. The Naturhistorisches Museum certainly qualifies as a recognized scientific institution of long and established reputation.

(2) In 1943, Clench & Aguayo (*The Genera Xenophora and Tugurium in the Western Atlantic*, Johnsonia, No. 8, 6 pp., illustr.) in monographing the xenophorids of the Western Atlantic coast stated for *Xenophora trochiformis* Born, 1778, " the type figure is that of Born given above " [Born, 1780, pl. 12, figs. 21, 22]. At that time Clench & Aguayo (1943) thought, without verification, that " Born specimens are in the Vienna Museum ". By the present designation, I am making the selection coincide with that of Clench & Aguayo, 1943. Theirs was the only previous statement of type. Clench & Aguayo recognized the priority of *Turbo trochiformis* Born, 1778, over *Trochus conchyliophorus* Born, 1780.

(3) To establish the binomen *Turbo trochiformis* Born, 1778 by designating a type-specimen (neotype). The binomen *Turbo trochiformis* [*Xenophora*] has been used to stand for the species by scholars in monographic research on the genera of the Xenophoridae. Chief and standard among these are: Fischer, P., 1876 (1880) (*Species gen. et icon. des Coquilles Vivantes* . . . cont'd of Kiener, vol. XI); Sacco, 1896 (*I Molluschi dei Terreni Terziarii del Piemonte a della Liguria*, pt. XX); Thiele [1929] (1931) (*Handbuch der systematischen Weichtierkunde*); Clench & Aguayo, 1943 (*The Genera Xenophora and Tugurium in the Western Atlantic*, Johnsonia, No. 8).

Therefore, according to the rules, Art. 75, I am designating the following: Specimen 74.12, Zoological Department, Naturhistorisches Museum, Wien, Austria, as the neotype of *Turbo trochiformis* Born, 1778 (Index Nat. Mus. Caes. Vindo., p. 355) (*Trochus conchyliophorus* Born, 1780, Test. Mus. Caes. Vindo., p. 333). Living. " Oceano Americano ". The locality of the neotype of *Turbo trochiformis* Born is West Indies.

FURTHER COMMENTS ON THE NAME OF THE TYPE-SPECIES OF *XENOPHORA* FISCHER VON WALDHEIM, 1807

By Robert Robertson (*Academy of Natural Sciences of Philadelphia, U.S.A.*)

In a petition proposing that the family-group name XENOPHORIDAE Deshayes, 1864, be preserved (1962, *Bull. zool. Nomencl.* **19**: 115–116), Dr. K. V. W. Palmer proposed also that the name *Turbo trochiformis* Born, 1778, be placed on the Official List of Specific Names in Zoology as the name of the type-species of the genus *Xenophora* Fischer von Waldheim, 1807. In her petition, Dr. Palmer did not explain why she made the statement that *Trochus conchyliophorus* Born, 1780, is a junior subjective synonym of *Turbo trochiformis* Born, 1778, and why the latter name should pertain to a species of *Xenophora*.

Following publication of Dr. Palmer's petition, I sent a comment to the Commission (*Bull. zool. Nomencl.* **19** : 231) pointing out that Dr. R. T. Abbott had discovered that the figures cited with the description of *Turbo trochiformis* portray a species of *Calyptraea* Lamarck, 1799, subgenus *Trochita* Schumacher, 1817. This *Calyptraea* superficially resembles a *Xenophora* ; the two genera are classified in different but related families.

In a further paper submitted to the Commission (also courteously sent to me), Dr. Palmer has given her reasons for proposing adoption of *Turbo trochiformis* as the name of the type-species of *Xenophora*. In my opinion, these reasons do not justify resurrection of the name. It is virtually a *nomen oblitum*, and is very dubiously applicable even to a species in the genus *Xenophora*.

The name *Trochus conchyliophorus*, proposed by Born in 1780, was accompanied with a description which could apply to almost any species of *Xenophora*. However, the identity of the species is not in question because the illustrations, together with the locality cited (" oceano americano "), specify the common, shallow-water West Indian *Xenophora*. *T. conchyliophorus* was well illustrated by Born (1780, pl. 12, figs. 21–22). In addition, Born referred directly to two other figures presumably portraying the same species (Davila, 1767, pl. 6, figs. M, m).

In a footnote following the name *Trochus conchyliophorus*, Born referred in 1780 to a name he had proposed two years earlier : *Turbo trochiformis*. In part, the inadequate description of *Trochus conchyliophorus* was copied from that of *Turbo trochiformis*. However, the significant phrase " testis Zoophytorum & Testaceorum adglutinatis onerata " was added in the 1780 publication. A sentence appended to the description of *Turbo trochiformis* in 1778 (" Vestigiata, testis alienis insidentibus ") was omitted in 1780.

No locality was mentioned with the description of *Turbo trochiformis* and Born did not illustrate this species. He referred directly to only two figures (Knorr, 1768, pl. 29, figs. 1–2). These two figures, not cited with the description of *Trochus conchyliophorus*, portray a *Calyptraea* (*Trochita*) from the northwest coast of South America, not a *Xenophora*[1]. It does not seem likely that Knorr's figures were cited unintentionally because Born's description could apply as well to a *Calyptraea* as to a *Xenophora*. There was no emphasis on the attached shells and other objects characteristic of *Xenophora*. The Latin sentence quoted above appended to the description, translated from Born's Latin and German by Professor Caplan as " Bearing *traces* of foreign shells adhering to it " (italics mine), could well have been used to describe the *Calptraea* figured by Knorr. This *Calyptraea* frequently is incrusted with serpulids, barnacles, and other sessile organisms, although Knorr's figures do not show such incrustations. In the eighteenth century it probably was not clearly understood that *Xenophora* selectively attaches objects to its shell, so there would have been no less reason to mention traces of attached " shells " on a *Calyptraea* than on a *Xenophora*.

The whorls of both *Turbo trochiformis* and *Trochus conchyliophorus* were stated by Born to be " plicato rugosis ". This phrase describes the *Calyptraea* figured by Knorr, but not the type-species of *Xenophora*, which lacks plications. Both shells were described by Born as white, with " radiis obliquis curvatis luteis ". Again, this phrase describes the *Calyptraea* but not the *Xenophora*. Born carelessly retained these two phrases in his description of *Trochus conchyliophorus*. The phrase "Apertura compressa, subquadrangularis ", appearing in the description of *Trochus conchyliophorus* but not in that of *Turbo trochiformis*, accords well with *Xenophora* but not with *Calyptraea*.

Above the description of *Turbo trochiformis*, Born mentioned a French vernacular name : " *Gall.* La fripiere. *Dav* ". During the late eighteenth and early nineteenth centuries this name was applied indiscriminately to any of the various species in

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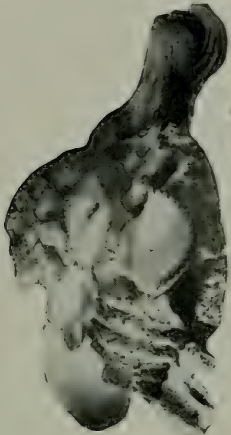
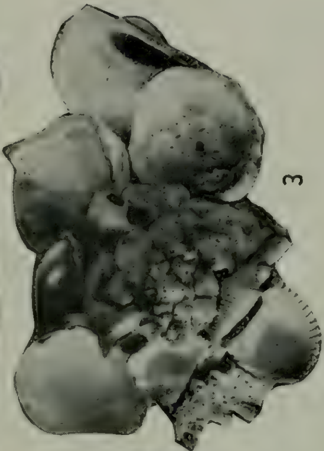
[1] Knorr believed wrongly that this *Calyptraea* came from the Antilles.


2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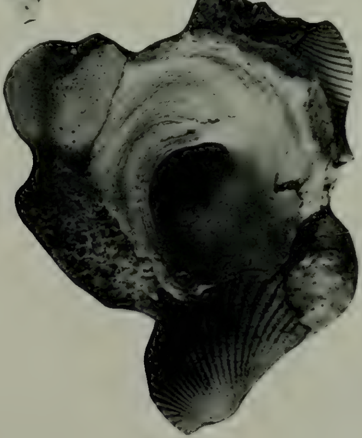
1

Xenophora trochiformis (Born) neotype.

Naturhist. Museum, Zoology Abteilung, Wien, No. 7412

Fig. 1. Basal view, 40 mm. greatest diameter.

Fig. 2. Side view, 31 mm. height.

Fig. 3. View from top.

BRITISH MUSEUM
NATURAL HISTORY

the genus *Xenophora* bearing attached shells or other objects. These species were not all distinguished and named at that time.

" *Dav.*" in the quotation above is an abbreviation of the name Davila. Dr. Palmer has interpreted " *Dav.*" as a reference to two figures in the book published by Davila in 1767. Such an interpretation is unwarranted for two reasons : 1. Born's *Index* is replete with direct, specific figure references for almost every species treated in the book. In his mis-titled *Index,* Born invariably placed references to illustrations in other books *below* part or all of each of the descriptions, and all such references are indented and centred. A direct reference to two figures in Davila's book can be seen on p. 431 of Born's *Index.* 2. Davila discussed under the name " fripiere " what he considered to be two species (note Davila's discussion in two paragraphs numbered 146 and 147 ; a paragraph was devoted to each species). Davila illustrated only one of the five shells he discussed ; the identity of the others is entirely problematical although presumably they all were xenophorids. It seems perilous to assume that both " Sabots d'Amérique " came from the West Indies.

The argument that Born's mention of the name " fripiere " negates his reference to the *Calyptraea* figures is, I submit, a violation of Article 16(b)(i) of the Code. The description (definition) of *Turbo trochiformis* was inadequate to specify a single species or even a genus (see Article 12), and Article 16(b)(i) rules that mention of a vernacular name does not constitute an indication. Moreover, the name " fripiere " was applied not to a single species, but virtually to the genus *Xenophora.*

Dr. Palmer has supposed, I believe wrongly, that *Trochus conchyliophorus* Born, 1780, was a new name for *Turbo trochiformis* Born, 1778. If carried to its logical conclusion, this supposition would, unfortunately, cause *Trochus conchyliophorus* to become a junior synonym of *Calyptraea* (*Trochita*) *trochiformis* (Born, 1778), because the latter is the older name. Dr. Palmer advocates use of the older name, but transfers to it retroactively the applicability of the younger name.

Born's 1780 footnote reference can be interpreted in an entirely different way from that suggested by Dr. Palmer. When he proposed the name *Trochus conchyliophorus* in 1780, Born may tacitly have been admitting that the definition of his *Turbo trochiformis* was confused, and that therefore the name was to be abandoned.

According to H. A. Rehder (1943, *Proc. Biol. Soc. Washington* **56** : 42–43), the *Calyptraea* (*Trochita*) figured by Knorr is one of several species confused by Gmelin (1791, *Syst. Nat.*, ed. 13, p. 3693) under the name *Patella trochiformis.* (Gmelin referred to various figures ; those of Knorr are cited with an interrogation mark.) Gmelin may perhaps have adopted Born's specific name *trochiformis,* although he did not refer to Born's *Index.*

The type-specimens of *Turbo trochiformis* and of *Trochus conchyliophorus* apparently are lost (*fide* Dr. Friedrich Bachmayer in letter to Dr. Palmer). Brauer (1878, *Sitz.-Ber. K. Akad. Wiss.* (*Wien*), *Math.-Naturwiss.* **77**(1) : 173) who examined Born's specimens of *Trochus conchyliophorus* before they were lost, remarked cryptically " Die vorhandenen Exemplare = *Phorus onustus* Reeve, *Onustus trochiformis* Adms. [H. & A. Adams, not Born] stimmen nicht genau mit dem Bilde. K II 97 ". Brauer may have been observing that H. & A. Adams's figures (1854, *Gen. Rec. Moll.* **1** : 363, pl. 40, fig. 2c) of "*Onustus* " [*Xenophora*] *trochiformis* (" Born ") do not correspond exactly with Born's (1780) illustrations of *Trochus conchyliophorus,* nor with Reeve's (1843) illustrations of *Phorus onustus.* Alternatively, Brauer may have appreciated that the figures cited with the description of *Turbo trochiformis* Born, 1778, do not depict a *Xenophora.* Yet again, the type of *Turbo trochiformis* may have been a different species from that of *Trochus conchyliophorus.*

Dr. Palmer has informed me (letter dated July 24, 1962) that she plans to select a shallow-water *Xenophora* from the West Indies as neotype of *Turbo trochiformis* Born, 1778. I would strongly oppose such action on the grounds that this would violate Article 75(a) and (b) of the Code. The name in general use for the type-species of *Xenophora* is without question *X. conchyliophora* (Born).

The name *Turbo trochiformis* Born, 1778, has been used for the type-species of *Xenophora* only twice in the last fifty years in what I consider to be " primary zoological literature " ; by Thiele in 1929 (not " Theile, 1931 ") and by Clench & Aguayo in 1943. Thus, while virtually a *nomen oblitum*, the name cannot be rejected under the ruling in Article 23(b). In the last fifty years, the name has been used also by Aguayo & Jaume (1947, mimeographed) and by Vignon (1923 ; *fide* Palmer ; *ubi ?*). Dr. Palmer's list of malacologists who have used the name *X. conchyliophora* (Born) could be lengthened very considerably.

Those malacologists who have adopted the specific name *trochiformis* Born, 1778, as a senior synonym of *Xenophora conchyliophora* (Born, 1780) all appear to have done so assuming that the latter name was merely a new name for the former. As has been shown above, the case is not nearly this simple. Since 1860, the following malacologists have either made this erroneous assumption or copied from one another uncritically : Fischer (1879), Cossmann (1888, but not 1916), Sacco (1896), Thiele (1929), and Clench & Aguayo (1943). None of these workers discussed this complicated case nor pointed out that the illustrations pertaining to *Turbo trochiformis* depict a *Calyptraea*. Dr. Palmer is the first malacologist knowing this to argue that the name should, nevertheless, be applied to a *Xenophora*.

If *Turbo trochiformis* Born, 1778, is placed on the Official List of Specific Names in Zoology as the name of the type-species of *Xenophora*, all malacologists apparently would be obliged to adopt the name because presumably it could no longer legally be rejected as a *nomen dubium* or be applied to the *Calyptraea*.

I conclude that the arguments advanced by Dr. Palmer are too subjective to warrant application of the name *Turbo trochiformis* Born, 1778, to the type-species of *Xenophora*. The name could apply to almost any xenophorid, *Calyptraea*, or other similarly shaped gastropod bearing incrusting " shells ". The figures cited portray a specifically identifiable *Calyptraea*, but the definition (description) is in no way adequate to determine whether this was the species to which Born intended to apply the name. There is no legally usable indication. In my opinion, *Turbo trochiformis* either should be rejected informally as a *nomen dubium*, or be applied to the *Calyptraea* figured by Knorr.

Originally, I favoured the latter solution but I now favour the former as the best (possibly temporary) expedient. Accordingly, I withdraw my proposal to place *Turbo trochiformis* Born, 1778, on the Official List of Specific Names in Zoology as a name applying to a *Calyptraea*. As was mentioned earlier in this paper, Gmelin confused several species under the name *Patella trochiformis*. The name *Calyptraea* (*Trochita*) *trochiformis* (Gmelin, 1791) has been used for a species occurring on the northwest coast of South America (the species illustrated by Knorr, referred to by Born with the description of *Turbo trochiformis*). However, Rehder (1943, *loc. cit.*) has applied Gmelin's name to a different species from Tranquebar, India : *Calyptraea* (*Bicatillus*) *trochiformis* (Gmelin, 1791). (Most malacologists rank *Trochita* and *Bicatillus* as subgenera of *Calyptraea*). Adoption of *Turbo trochiformis* Born, 1778, as the name for the *Calyptraea* from the northwest coast of South America would render Rehder's usage homonymous. A specialist on the group should decide whether this would be desirable.

In the interests of nomenclatural stability, I again propose that *Trochus conchyliophorus* Born, 1780, be placed on the Official List of Specific Names in Zoology as the oldest name applying unequivocally to the type-species of the genus *Xenophora* Fischer von Waldheim, 1807.

By Donald R. Moore (*Marine Laboratory, University of Miami, Virginia Key, Florida, U.S.A.*)

I have received a separate of a paper published by K. V. W. Palmer in the *Bull. zool. Nomencl.* **19** : part 2. In this paper she proposes that the family-name Xenophoridae be placed on the Official List of Family-Group Names in Zoology.

I have reviewed her proposals and have the following comments to make.

(1) Xenophoridae was used as a family name by R. A. Philippi, Handbuch der Conchyliologie and Malacozoologie, 1853, p. 185. This antedates Onustidae H. and A. Adams, 1854. Since the family name Phoridae, 1840 is a homonym of Phoridae, 1833 (Insecta, Order Diptera), I see no problem in declaring the family name Xenophoridae to be the preferred name.

(2) I agree with this proposal as stated.

(3) R. Tucker Abbott has stated that *Turbo trochiformis* Born, 1778 is a Peruvian shell that has been known as *Trochita radians* Lamarck (American Sea-shells, 1954, p. 173). If this statement is correct, than *Turbo trochiformis* Born is not in the family Xenophoridae.

(4) Xenophoridae Philippi, 1853, should be placed on the Official List of Family-Group Names in Zoology.

By R. Tucker Abbott *Academy of Natural Sciences of Philadelphia, U.S.A.*)

These remarks pertain to Dr. K. V. W. Palmer's argument that *Trochus conchyliophorus* Born, 1780, is a junior objective synonym of *Turbo trochiformis* Born, 1778. Firstly, because Born probably possessed two different specimens and because the descriptions and figures cited are different, the argument should limit itself to whether or not a subjective (and not an objective) synonym is involved. In view of the fact that Born's 1778 poorly diagnostic description may refer to a denuded carrier-shell (une fripière) and that the type is evidently lost, there is a choice of selecting the cited figure of Knorr (which may well be *Trochita radians* Lamarck) as representing the type, or of declaring *Turbo trochiformis* Born, 1778, a *nomen dubium*. I urge the latter course in view of the much wider use of the name *conchyliophorus* Born, 1780. G. Fischer, the author of *Xenophora*, considered his species *laevigata* G. Fischer, 1807, as the same as *conchyliophora* Born, 1780, and does not mention *trochiformis* (*Bull. Soc. Imp. Nat. Moscow* **8** : 102).

The fact that Born in 1780 attempted in an unorthodox manner to re-name his *trochiformis* by giving a figure of a better shell and adding the more appropriate name of *conchyliophorus* does not influence the original status of *trochiformis*. The latter species must be accepted on the merits of the original description. *Trochus conchyliophorus* based upon a different shell is adequately figured and described, and is the common Caribbean Carrier-shell.

The first non-binomial revisors (Chemnitz, 1781, and Schröter's Index to Chemnitz) used the names *lithophorus* and *conchyliophorus*, but not *trochiformis*. The first binomial revisor, Gmelin, 1791, p. 3584, used *conchyliophorus* and ignored *trochiformis*. I concur with Gmelin that *conchyliophorus* is not a new name for *trochiformis*.

PRESERVATION OF *PNOEPYGA* THROUGH SUPPRESSION OF THE NAME *MICROURA* (Z.N.(S.)1457)

Answer by Ernst Mayr to the comments made by Ripley (*Bull. zool. Nomencl.* **19** : 2), Ali (*Bull. zool. Nomencl.* **19** : 2), Parkes (*Bull. zool. Nomencl.* **19** : 68) and Rand (*Bull. zool. Nomencl.* **19** : 131)

Because these comments contain a number of inaccuracies, it is necessary to emphasize once more the true facts of the case (see also *Bull. zool. Nomencl.* **18** : 209).

(1) I have been unable to find a single use of the name *Microura* in the primary zoological literature in the more than 100 years between the 1850's and the publication of the application for its suppression 16 June 1961). Nor has any supporter of the name *Microura* been able to cite such a usage. The fact that the name *Microura* has—for the sake of completeness—occasionally been listed in bibliographic works in the synonymy of *Pnoepyga* is irrelevant as far as the application of the conservation principle is concerned.

Microura is clearly a nomen oblitum as defined in the Code (Art. 23b). Nothing illustrates the complete stability in the genus *Pnoepyga* better than the fact that every one of the 15 new species and subspecies described in the genus since 1837 was described under the generic name *Pnoepyga*.

(2) The application for the suppression of the name *Microura* was mailed to the Commission on 19 April 1960, and was published in the *Bulletin* (vol. 18, pp. 209–210) on 16 June 1961. The name *Microura* has since that time been used by Ripley in his *Synopsis of the Birds of India and Pakistan* of which I saw an early (? pre-publication) copy in October 1961 and by Ali in the *Birds of Sikkim* (a pre-publication copy displayed by the author in June 1962).

Both usages were in violation of Article 23b and of the principle that existing usage is to be maintained when a name is under consideration by the Commission (Article 80). Surely, at least in the case of Ali's publication, it should have been possible to restore the traditional name in the proof. It is of no relevance to the merits of the case whether or not the name *Microura* is used in one or two unpublished manuscripts.

(3) It is not true that *Pnoepyga* is a rarely used name, not worthy of preservation through the plenary powers of the Commission. Not only is it the name used in all the classical handbooks and catalogues, such as the Cat. Birds Brit. Mus., but it is universally used in all the faunal lists and avifaunas published in recent years covering the vast area between Nepal and Timor. In a cursory look through the recent literature I found the genus treated (under the name *Pnoepyga*) in the following major works :

Baker, 1922, Fauna of Brit. India ; Biswas, 1954, Checklist of genera of Indian Birds ; Rand and Fleming, 1957, Birds from Nepal ; Vaurie, 1959, Birds of the Palearctic Fauna ; Cheng, 1958, List of Chinese Birds ; Smythies, 1940, 1953, Birds of Burma (both editions) ; Deignan, 1945, Birds of No. Thailand ; Delacour, 1931, Les Oiseaux de l'Indochine Française ; Chasen, 1935, Handlist of Malaysian Birds ; Delacour, 1947, Birds of Malaysia ; Glenister, 1951, Birds of Malay Peninsula; Kuroda, 1933, Birds of the Island of Java ; Rensch, 1931, Die Vogelwelt von Lombok, Sumbawa und Flores ; Mayr, 1944, Birds of Timor and Sumba.

Pnoepyga is the name used in the most recent revision of the family to which the genus belongs (Delacour, 1946, Les Timalinés, L'Oiseau, pp. 7–36).

(4) The statement made by Parkes (*Bull. zool. Nomencl.* **19** : 68), " The geographic range of the wren-babblers extends from the Himalayas into the Indo-Chinese countries and to Formosa ", is contrary to the facts. The genus has a much wider distribution, extending far into China, the Malay States, Sumatra, Java, Flores, and Timor. The use of *Microura* by Ripley in his list of Indian birds is of no relevance to the universal usage of *Pnoepyga* in the vast area outside India.

(5) The claim by Parkes (*Bull. zool. Nomencl.* **19** : 68), that the use of *Microura* in Ripley's Synopsis and in some manuscripts in preparation would lead to the adoption of the name by other workers on Indian birds is not substantiated by the facts. B. Biswas of the Zool. Survey, author of the Checklist of genera of Indian birds and of the Birds of Nepal, an active worker on the Indian avifauna, supports the suppression of *Microura*.

(6) The argument by Parkes that the authority of a monograph or faunistic list is so great, that the adoption of a new name in such a work (in preference to a previously universally used name and in disregard of the provisions of the Code) would soon lead to a new stability, is an exceedingly dangerous one. To give in to this argument in the case of *Microura* would set a precedent permitting any mono-

grapher to chose his own nomenclature—in disregard of the provisions of the Code—in the conviction that his authority would henceforth dominate the nomenclature of the group. This, indeed, was the situation before the adoption of the Code. To bow to Ripley's resurrection of the name *Microura* would signify a return to the pre-Code situation of nomenclatural anarchy.

For all these reasons, it would seem inadvisable to deviate in any manner whatsoever from the proposals of the original application.

OPINION 643

IDOTEA FABRICIUS, 1798, AND *MESIDOTEA* RICHARDSON, 1905 (CRUSTACEA, DECAPODA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the generic name *Idotea* Weber, 1795, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy;

(b) the following names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

  (i) the specific name *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus*;

  (ii) the generic name *Saduria* Adams, 1852;

  (iii) the generic name *Idotaega* Lockington, 1877;

(c) all designations of type-species for the genus *Idotea* Fabricius, 1798, made prior to the present Ruling are hereby set aside and the nominal species *Cymothoa emarginata* Fabricius, 1793, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Emerita* Scopoli, 1777 (gender: feminine), type-species, by subsequent monotypy, *Cancer emeritus* Linnaeus, 1767 (Name No. 1496);

(b) *Hippa* J. C. Fabricius, 1787 (gender: feminine), type-species, by designation by Rathbun, 1900, *Hippa adactyla* Fabricius, 1787 (Name No. 1497);

(c) *Idotea* J. C. Fabricius, 1798 (gender: feminine), type-species, by designation under the plenary powers in (1)(c) above, *Cymothoa emarginata* Fabricius, 1793 (Name No. 1498);

(d) *Jaera* [Leach, 1814] (gender: feminine), type-species, by monotypy, *Jaera albifrons* [Leach, 1814] (Name No. 1499);

(e) *Mesidotea* Richardson, 1905 (gender: feminine), type-species, by designation by Gurjanova, 1936, *Oniscus entomon* Linnaeus, 1758 (Name No. 1500).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *adactyla* J. C. Fabricius, 1787, as published in the binomen *Hippa adactyla* (type-species of *Hippa* J. C. Fabricius, 1787) (Name No. 1852);

(b) *albifrons* [Leach, 1814], as published in the binomen *Jaera albifrons* (type-species of *Jaera* [Leach, 1814]) (Name No. 1853);

(c) *balthicus* Pallas, 1772, as published in the binomen *Oniscus balthicus* (Name No. 1854);

(d) *emarginata* J. C. Fabricius, 1793, as published in the binomen *Cymothoa emarginata* (type-species of *Idotea* J. C. Fabricius, 1798) (Name No. 1855);

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(e) *emeritus* Linnaeus, 1767, as published in the binomen *Cancer emeritus*, as defined by the lectotype designated by Holthuis, 1960 (type-species of *Emerita* Scopoli, 1777) (Name No. 1856);
(f) *entomon* Linnaeus, 1758, as published in the binomen *Oniscus entomon* (type-species of *Mesidotea* Richardson, 1905) (Name No. 1857);
(g) *neglecta* Sars, 1897, as published in the binomen *Idothea* (sic) *neglecta* (Name No. 1858).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Emerita* Gronovius, 1764 (published in a work rejected for nomenclatorial purposes) (Name No. 1571);
(b) *Emerita* Meuschen, 1778 (published in a work rejected for nomenclatorial purposes) (Name No. 1572);
(c) *Emerita* Meuschen, 1781 (published in a work rejected for nomenclatorial purposes) (Name No. 1573);
(d) *Idotaea* Dana, 1849 (an incorrect spelling for *Idotea* Fabricius, 1798) (Name No. 1574);
(e) *Idotea* Weber, 1795 (as suppressed under the plenary powers in (1)(a) above) (Name No. 1575);
(f) *Idothea* Fabricius, 1796 (a nomen nudum) (Name No. 1576);
(g) *Idothea* Fabricius, 1799 (an incorrect spelling for *Idotea* Fabricius, 1798) (Name No. 1577);
(h) *Idothea* Richardson, 1905 (an unjustified emendation of *Idotea* Fabricius, 1798) (Name No. 1578);
(i) *Saduria* Adams, 1852 (as suppressed under the plenary powers in (1)(b)(ii) above) (Name No. 1579);
(j) *Siduria* Milne-Edwards, 1840 (a vernacular name and a nomen nudum) (Name No. 1580);
(k) *Saduria* White, 1847 (unavailable because published in a synonymy) (Name No. 1581);
(l) *Mesidothea* Stephensen, 1913 (an incorrect spelling for *Mesidotea* Richardson, 1905) (Name No. 1582);
(m) *Idotaega* Lockington, 1877 (as suppressed under the plenary powers in (1)(b)(iii) above) (Name No. 1583).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *marinus* Linnaeus, 1758, as published in the binomen *Oniscus marinus* (as suppressed under the plenary powers in (1)(b)(i) above) (Name No. 718);
(b) *marinus* O. Fabricius, 1780, as published in the binomen *Oniscus marinus* (an alleged but non-existent name) (Name No. 719);
(c) *eniomon* Gurjanova, 1936, as published in the binomen *Mesidothea* (sic) *eniomon* (an incorrect spelling for *entomon*, *Oniscus*, Linnaeus, 1758) (Name No. 720).

(6) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) HIPPIDAE (correction of HIPPIDES) Latreille, 1825 (type-genus *Hippa* Fabricius, 1787) (Name No. 330);

(b) IDOTEIDAE (correction of IDOTEADAE) Samouelle, 1819 (type-genus *Idotea* Fabricius, 1798) (Name No. 331);

(c) MESIDOTEINI Racovitza & Sevastos, 1910 (type-genus *Mesidotea* Richardson, 1905) (Name No. 332).

(7) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) HIPPIDES Latreille, 1825 (type-genus *Hippa* Fabricius, 1787) (an incorrect original spelling for HIPPIDAE) (Name No. 361);

(b) IDOTEADAE Samouelle, 1819 (type-genus *Idotea* Fabricius, 1798) (an incorrect original spelling for IDOTEIDAE) (Name No. 362).

HISTORY OF THE CASE (Z.N.(S.) 412)

The proposal to validate the generic name *Idotea* Fabricius was first submitted to the Secretary of the Commission by Dr. Poul Heegaard in 1949. Information supplied by Dr. Heegaard and by Dr. L. B. Holthuis was united in a joint application which was sent to the printer on 14 July 1959 and was published on 8 April 1960 in *Bull. zool. Nomencl.* **17** : 178–184. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). A number of comments were received and a full account of these is given in the following Secretary's Note which was sent to Commissioners with Voting Paper (61)34 :—

" The proposal by Heegaard and Holthuis was published in *Bull. zool. Nomencl.* **17** : 178–184. All comments on the case have supported the proposals made by those authors except on one point, on which opinions have been divided.

" 2. First, Dr. Henning Lemche wrote (26.iv.60) to the Secretary of the Commission complaining about the proposed sinking of the generic name *Mesidotea* Richardson, 1905, as a synonym of *Saduria* Adams, 1852. Dr. Lemche later (25.vii.60) wrote making definite proposals that the name *Saduria* should be suppressed under the plenary powers in order to conserve *Mesidotea* (see *Bull. zool. Nomencl.* **18** : 64).

" 3. On 2.vi.60 Dr. Thomas E. Bowman of the U.S.A. National Museum wrote in support of the application as follows :

> ' I wish to support the proposal of Heegaard and Holthuis regarding the name *Idotea* and matters connected therewith. Acceptance of their application would certainly be in the interests of nomenclatural stability.
>
> ' In particular the generic name *Mesidotea* Richardson should give way to its earliest synonym *Saduria* Adams, in accordance with the law of priority It may be objected that *Mesidotea* is widely used in works dealing with the Arctic marine fauna, but use of the name *Saduria* is becoming more common ; it is used throughout a recent comprehensive two volume work on crustacean physiology (T. H. Waterman, editor ; The physiology of Crustacea ; vol. 1, 670 pp., vol. 2, 510 pp. ; Academic Press, New York, 1960).

'If the Commission should rule in favour of *Saduria*, the subfamily name MESIDOTEINAE Racovitza and Sevastos, 1910, originally spelled MESIDOTEINI (*Arch. Zool. Exp. Gén.* (5) **6** : 194) should be added to the Official Index, and the new name SADURINAE placed on the Official List.

'With regard to the selection of *Oniscus entomon* L. as the type-species of *Mesidotea*, this appears to have been done already, although I cannot give the original citation. Gurjanova, 1936 (*Fauna of the U.S.S.R.* **7**(3) : 145) gives as the type of the genus *Mesidothea* (sic), *M. entomon* (L.), misprinted as *eniomon*. The name *Mesidothea* appears to be an erroneous spelling of *Mesidotea*, but I have not been able to determine with certainty when this incorrect form was first used. Stephensen, 1913 (*Medd. om Grønland*, **22** : 235) may have been the first author ; he gave *Mesidothea Sabinei* Richardson, 1905 as a synonym of *Glyptonotus Sabinei*, Kr. *Mesidothea* should be added to the Official Index.

'If the Commission should rule to retain *Mesidotea*, the two senior synonyms *Saduria* Adams and *Idotaega* Lockington, 1877 (*Proc. Calif. Acad. Sci.* **7**(1) : 45) type-species by monotypy, *I. longicauda*, would have to be placed on the Official Index. No action concerning *Idotaega* would be necessary if the Commission would follow the simpler procedure of adhering to the law of priority as recommended by Heegaard and Holthuis in their application.'

"To this letter Dr. Holthuis replied (22.vi.60) :

'I have indeed overlooked both the existence of the family-group name MESIDOTEINI Racovitza & Sevastos, 1910, and the type-selection of *Oniscus entomon* L. as the type of *Mesidotea* Richardson, 1905. The latter type selection very easily can be put in the place of the one we had, but with the subfamily it is a different matter. In order to make the name SADURIINAE (not SADURINAE) the legal name for the subfamily containing the genus *Saduria* Adams, the older name MESIDOTEINAE has to be suppressed under the plenary powers.'

"4. Dr. Holthuis's reply to Dr. Lemche's letter of 25.vii.60 mentioned in para. 2 above was published in *Bull. zool. Nomencl.* **18** : 98, together with Dr. Lemche's further proposal for dealing with a further senior synonym of *Mesidotea*, and a comment, also supporting the conservation of *Mesidotea* from Dr. Torben Wolff.

"5. Since these comments were printed the following letters have been received :

"Prof. T. Jaczewski (13.v.61) :

'In connection with the case of the generic name *Mesidotea* Richardson, 1905, I wish to support decidedly the proposed use of the plenary powers to validate this generic name under the suppression of the generic names *Saduria* Adams, 1852, and *Idotaega* Lockington, 1877. In the countries around the Baltic Sea the name *Mesidotea* Richardson is in general and well established use not only among zoologists, but also among ecologists, fishery biologists etc. I am enclosing for your information a copy of a booklet by Prof. Dr. M. Bogucki dealing with *Mesidotea entomon* (L.) and published here in 1956 for the use of students, teachers, fishery biologists, and persons interested in biology in general. The invalid spelling *Mesidothea* used in this booklet, and found in many other publications should be placed on the Official Index.'

" Dr. Per Brinck (2.vi.61):

' *Mesidotea entomon* is an often quoted name in literature on glacial relics, particularly so in the lakes around the Baltic (Denmark, Germany, Poland, Lithuania, Latvia, Esthonia, Finland and Sweden). In textbooks as in high school and university teaching it is a well-known species frequently dealt with as a characteristic element of certain stages or types of lakes or brackish seas in the North. It would be confusing to change the generic name of this animal for a name which has been used very rarely in this century.

' Therefore I support Dr. Lemche's proposal which means that *Mesidotea* be preserved as the generic name of *Oniscus entomon* Linnaeus, 1758.'

" Dr. Holthuis (27.vi.61):

' Dr. Thomas E. Bowman of the U.S. National Museum in Washington D.C., drew my attention to two uses of the name *Saduria* before the usage by Adams, 1852. *Saduria* being a manuscript name of W. E. Leach, figured with material in the British Museum and thereby became known to some carcinologists. The first use of the name is by H. Milne Edwards (1840, *Hist. nat. Crust.* **3** : 126) who misspelled it *Siduria* and used it in the following sentence : " Nous réunissons donc ici, aux Idotées ordinaires, les Sténosomes (1) et les *Siduria* (2) de Leach, ainsi que les Leptosomes . . . " Footnote (2) says : " (2) Leach, Collection du musée britannique ". The name *Siduria* is used nowhere else by H. Milne Edwards ; it is thus a vernacular name and a nomen nudum. The name *Saduria* is used by White (1847, List Crust. Brit. Mus. : 94) as " Saduria entomon, *Leach. MSS.*" in the synonymy of " Idotea Entomon, *Latr.*" As this name is published in a synonymy it is not thereby made available. Both *Siduria* H. Milne Edwards, 1840, and *Saduria* White, 1847, should therefore be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.'

" 6. The Commission therefore has alternative proposals, before it, both requiring the use of the plenary powers. *Alternative A* (supported by Heegaard and Holthuis, Bowman) : is set out in *Bull. zool. Nomencl.* **17** : 182–184 and it is suggested that the following proposals be added :

(4) (j) *Siduria* Milne-Edwards, 1840, a vernacular name and a nomen nudum ;
  (k) *Saduria* White, 1847, unavailable because published in a synonymy ;
  (l) *Mesidothea* Stephenson, 1913, an incorrect spelling for *Mesidotea* Richardson, 1905 ;
(5) (c) *eniomon* Gurjanova, 1936, as published in the binomen *Mesidothea* [sic] *eniomon* an incorrect spelling for *Oniscus entomon* Linnaeus, 1758 ;
(6) (c) MESIDOTEINI Racovitza & Sevastos, 1910 (type-genus *Mesidotea* Richardson, 1905).

Alternative B (supported by Lemche, Wolff, Jaczewski and Brinck) :

Proposals printed in *Bull. zool. Nomencl.* **17** : 182–184 and supplemented as above to be amended as follows :

Add (1)(e) to suppress the generic name *Saduria* Adams, 1852, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(1)(f) to rule that *Idotaega* Lockington, 1877, is not to be given priority over *Mesidotea* Richardson, 1905, by those zoologists who consider that *Idotaega longicauda* Lockington and *Oniscus entomon* Linnaeus belong to the same genus-group taxon ;

Substitute for (2)(e) *Mesidotea* Richardson, 1905 (gender : feminine), type-species, by designation by Gurjanova, 1936, *Oniscus entomon* Linnaeus, 1758 ;

Add (2) (f) *Idotaega* Lockington, 1877 (gender : feminine), type-species, by monotypy, *Idotaega longicauda* Lockington, 1877 ; (for use only by those zoologists who consider that *Idotaega longicauda* Lockington and *Oniscus entomon* Linnaeus belong to different genus-group taxa) ;

Substitute for (4) (i) *Saduria* Adams, 1852, suppressed under the plenary powers in (1)(c) above ;

Add (4) (m) *Idotoega* Lockington, 1877, an incorrect original spelling for *Idotaega* Lockington, 1877.

" 7. The crux of this matter is whether *Saduria*, under the rules, should prevail, or whether it should be set aside, under the plenary powers, in favour of *Mesidotea*. Other matters are consequential or supporting. There is evidence that *Mesidotea* is in fairly general use, none in favour of *Saduria* prior to 1960. Commissioners must ask themselves whether this particular point (*Saduria* or *Mesidotea*) is or is not of such importance that the Rules should be suspended in favour of the junior name.

" 8. Dr. Lemche's proposal (1(f)), designed to keep *Idotaega* available (though senior to, and an almost undoubted synonym of *Mesidotea*) appears peculiarly dangerous. It would seem far safer to put it on the Official Index, as otherwise it is a permanent threat to *Mesidotea*. Commissioners who disapprove of Dr. Lemche's proposal (in respect of *Idotaega*) are therefore now asked to inform the Secretary whether or not they agree that *Idotaega* be placed on the Official Index under the plenary powers.

" 9. Voting Paper (61)34 is therefore divided into two parts. In Part I Commissioners are asked to vote either for or against the use of the plenary powers in the present case. In Part II Commissioners who have voted affirmatively in Part I are asked to choose between Alternative A put forward by Heegaard & Holthuis and Alternative B put forward by Lemche (with the possible exception of the paragraph 1(f) to which attention is drawn in para. 8 of this report)."

DECISION OF THE COMMISSION

On 1 December 1961 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (61)34, Part 1, either for or against the use of the plenary powers in the present case. In part 2 of that Voting Paper Commissioners were invited to vote either for Alternative A (as set out in *Bull. zool. Nomencl.* **17** : 182–184, as supplemented in paragraph 6 of the accompanying Secretary's Note) or for Alternative B (as set out in *Bull. zool. Nomencl.* **17** : 182–184, as supplemented and amended in paragraphs 6 and 7 of the accompanying Secretary's Note). At the close of the prescribed Voting Period on 1 March 1962 the state of the voting was as follows :

Part 1. Affirmative Votes—twenty-three (23), received in the following order : Evans, Holthuis, Hering, Riley, Vokes, Mayr, Jaczewski, Obruchev, Alvarado, Kühnelt, Bonnet, Brinck, Munroe, Uchida, Lemche, Stoll, do Amaral, Key, Borchsenius, Tortonese, Mertens, Miller, Poll.

Negative Votes—none (0).

On leave of absence—two (2) : Bradley, Prantl.

Voting Papers not returned—two (2) : Boschma, Hemming.

Part 2. Votes for Alternative A :—ten (10) : Holthuis, Alvarado, Bonnet, Uchida, Stoll, Borchsenius, Tortonese, Mertens, Miller, Poll.

Votes for Alternative B :—thirteen (13) : Evans, Hering, Riley, Vokes, Mayr, Jaczewski, Obruchev, Kühnelt, Brinck, Munroe, Lemche, do Amaral, Key.

A majority of the Commissioners voting for Alternative B, expressed a preference for the suppression of *Idotaega*.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

adactyla, *Hippa*, J. C. Fabricius, 1787, *Mant. Ins.* **1** : 329
albifrons, *Jaera*, [Leach, 1814], Brewster's *Edinb. Ency.* **7**(2) : 434
balthicus, *Oniscus*, Pallas, 1772, *Spicil. Zool.* (9) : 66
emarginata, *Cymothoa*, J. C. Fabricius, 1793, *Ent. syst.* **2** : 508
Emerita Gronovius, 1764, *Zoophyl. Gronov.* (2) : 234
Emerita Meuschen, 1778, *Mus. Gronov.* : 87
Emerita Meuschen, 1781, *Index Zoophyl. Gronov.* : (9)
Emerita Scopoli, 1777, *Introd. Hist. Nat.* : 405
emeritus, *Cancer*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1**(2) : 1055
eniomon, *Mesidothea*, Gurjanova, 1936, *Fauna of the USSR* **7**(3) : 145
entomon, *Oniscus*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 636
Hippa J. C. Fabricius, 1787, *Mant. Ins.* **1** : 329
HIPPIDAE Latreille, 1825, *Fam. nat. Règne Anim.* : 275
HIPPIDES Latreille, 1825, an incorrect original spelling for HIPPIDAE q.v.
Idotaea Dana, 1849, *Amer. J. Sci.* (2) **8** : 426
Idotaega Lockington, 1877, *Proc. Calif. Acad. nat. Sci.* **7** : 183
Idotea J. C. Fabricius, 1798, *Suppl. Ent. syst.* : 297, 302
Idotea Weber, 1795, *Nomencl. ent.* : 94
IDOTEADAE Samouelle, 1819, an incorrect original spelling for IDOTEIDAE q.v.
IDOTEIDAE Samouelle, 1819, *Entom. useful Compendium* : 106
Idothea J. C. Fabricius, 1796, *Index Ent. syst.* : 86
Idothea J. C. Fabricius, 1799, *Index alph. Suppl. Ent. syst.* : 27
Idothea Richardson, 1905, *Proc. biol. Soc. Washington* **18** : 9
Jaera [Leach, 1814], Brewster's *Edinb. Ency.* **7**(2) : 434

marinus, Oniscus, O. Fabricius, 1780 [*Fauna Groenl.* : 252]
marinus, Oniscus, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 637
Mesidotea Richardson, 1905, *Bull. U.S. nat. Mus.* **54** : 347
MESIDOTEINI Racovitza & Sevastos, 1910, *Arch. Zool. exp. gén.* (5) **6** : 194
Mesidothea Stephensen, 1913, *Medd. om Grønl.* **22** : 235
neglecta, Idothea, Sars, 1897, *Crust. Norway* **2**(5, 6) : 84
Saduria Adams, 1852, *Sutherland's J. Voy. Baffin Bay Barrow Strait* **2** : ccvii
Saduria White, 1847, *List. Crust. Brit. Mus.* : 94
Siduria H. Milne-Edwards, 1840, *Hist. nat. Crust.* **3** : 126

The following are the original references for the designation of type-species for two genera concerned in the present Ruling :

For *Hippa* Fabricius, 1787 : Rathbun, 1900, *Proc. U.S. nat. Mus.* **22** : 301
For *Mesidotea* Richardson, 1905 : Gurjanova, 1936, *Fauna of the USSR* **7**(3) : 145

The following is the original reference for the selection of a lectotype for a nominal species concerned in the present Ruling :

For *Cancer emeritus* Linnaeus, 1767 : Holthuis, 1960, *Bull. zool. Nomencl.* **17** : 182

CERTIFICATE

WE certify that the votes cast on Voting Paper (61)34 were cast as set out above, that the proposal set out as Alternative B in that Voting Paper has been duly adopted in an amended form under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 643.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
13 *March* 1962

OPINION 644

COLUBER ATRATUS HALLOWELL, 1845 (REPTILIA) ; VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy :

(a) *atratus* Gmelin, 1788, as published in the binomen *Coluber atratus* ;

(b) *atratus*, any other use in the combination *Coluber atratus* prior to that by Hallowell, 1845.

(2) The specific name *atratus* Hallowell, 1845, as published in the binomen *Coluber atratus*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1859.

(3) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified :

(a) *atratus* Gmelin, 1788, as published in the binomen *Coluber atratus* (as suppressed under the plenary powers in (1)(a) above) (Name No. 721) ;

(b) *atratus*, any other use in the combination *Coluber atratus* prior to that by Hallowell, 1845 (as suppressed under the plenary powers in (1)(b) above) (Name No. 722).

HISTORY OF THE CASE (Z.N.(S.) 1371)

An application for the preservation of *Coluber atratus* Hallowell was submitted to the Office of the Commission in June 1958 by Dr. James A. Peters. Dr. Peters's application was sent to the printers on 28 March 1960 and was published on 5 December 1960 in *Bull. zool. Nomencl.* **18** : 85–86. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). Support for Dr. Peters's proposal was received from Dr. G. W. Mead (*Bull. zool. Nomencl.* **18** : 226) and Dr. J. A. Roze.

DECISION OF THE COMMISSION

On 1 December 1961 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (61)36 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 86. At the close of the prescribed Voting Period on 1 March 1962 the state of the voting was as follows :

Affirmative Votes—twenty-two (22), received in the following order :

Evans, Holthuis, Hering, Riley, Uchida, Vokes, Mayr, Obruchev, Kühnelt, Bonnet, Brinck, Munroe, Lemche, Stoll, Jaczewski, do Amaral, Key, Tortonese, Mertens, Miller, Alvarado, Poll.

Negative Votes—one (1) : Borchsenius.

On Leave of Absence—one (1) : Bradley.

Voting Papers not returned—three (3) : Boschma, Hemming, Prantl.

The following comments were made by Commissioners in returning their votes :

Dr. L. B. Holthuis (7.xii.61) : " With pleasure I am giving my support to this proposal, but should like to add a similar paragraph to that which Dr. Key and I suggested for the *Encrinus* question. As it seems very probable that the name *Coluber atratus* Gmelin has been used in the period 1788–1845, I would suggest that part (1) of the proposal be changed as follows :

(1) to use its plenary powers to suppress for the purposes of the Law of Priority and the Law of Homonymy the following specific names :
  (a) *atratus* Gmelin, 1788, as published in the binomen *Coluber atratus* ;
  (b) *atratus* any other use of this name in the combination *Coluber atratus* published prior to the publication of the name *Coluber atratus* Hallowell, 1845."

Dr. A. do Amaral (5.ii.62) : "As a specialist on Neotropic Ophidia I strongly support this proposal."

On 7 February 1962 the Secretary of the Commission, agreeing with Dr. Holthuis's suggestion, circulated to the Commission a short explanatory note together with Voting Paper (O.M.) (62)1, inviting Commissioners to vote under the One-Month Rule either for or against the proposed suppression of all uses of the name *Coluber atratus* prior to that by Hallowell, 1845. At the close of the prescribed voting period on 7 March 1962 the state of the voting was as follows :

Affirmative Votes—eighteen (18), received in the following order : Hering, Holthuis, Evans, Munroe, Mertens, Stoll, Mayr, Vokes, Lemche, Miller, Jaczewski, Uchida, Riley, Alvarado, Key, Kühnelt, Brinck, Bonnet.

Negative Votes—none (0).

On Leave of Absence—two (2) : Bradley, Prantl.

Voting Papers not returned—four (4) : Hemming, Tortonese, Poll, Obruchev.

Commissioners Borchsenius, do Amaral, and Boschma returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official List and Index by the Ruling given in the present Opinion :

atratus, *Coluber*, Gmelin, 1788, *Syst. Nat.* (ed. 13) **1** : 1103
atratus, *Coluber*, Hallowell, 1845, *Proc. Acad. nat. Sci. Philad.* **2** : 245

CERTIFICATE

We certify that the votes cast on Voting Papers (61)36 and (O.M.) (62)1 were cast as set out above, that the proposals set out in those Voting Papers were duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission on Zoological Nomenclature is truly recorded in the present Opinion No. 644.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature

London
14 *March* 1962

OPINION 645

PERLA GEOFFROY, 1762 (INSECTA, PLECOPTERA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers (a) the generic name *Perla* Geoffroy, 1762, is hereby validated and (b) the nominal species *Perla bipunctata* Pictet, 1833, is hereby designated to be the type-species of the genus so named.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Perla* Geoffroy, 1762 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Perla bipunctata* Pictet, 1833 (Name No. 1501) ;

(b) *Diura* Billberg, 1820 (gender : feminine), type-species, by monotypy, *Phryganea bicaudata* Linnaeus, 1758) (Name No. 1502).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *bipunctata* Pictet, 1833, as published in the binomen *Perla bipunctata* (type-species of *Perla* Geoffroy, 1762) (Name No. 1860) ;

(b) *bicaudata* Linnaeus, 1758, as published in the binomen *Phryganea bicaudata* (type-species of *Diura* Billberg, 1820) (Name No. 1861).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Perla* De Geer, 1773 (a junior homonym of *Perla* Geoffroy, 1762) (Name No. 1584) ;

(b) *Perla* Retzius, 1783 (a junior homonym of *Perla* Geoffroy, 1762) (Name No. 1585).

(5) The family-group name PERLIDAE (correction of PERLARIAE) Latreille, [1802–1803] (type-genus *Perla* Geoffroy, 1762) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 333.

(6) The family-group name PERLARIAE Latreille, [1802–1803] (type-genus *Perla* Geoffroy, 1762) (an incorrect original spelling for PERLIDAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 363.

HISTORY OF THE CASE (Z.N.(S.) 1451)

An application for the stabilisation of the generic name *Perla* was submitted to the office of the Commission by Mr. D. E. Kimmins on 29 February 1960. After emendation Mr. Kimmins' application was sent to the printer on 27 June 1960 and was published on 5 December 1960 in *Bull. zool. Nomencl.* **18** : 87–89. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials.

Bull. zool. Nomencl., Vol. 20, Part 1. March, 1963.

On 16 January 1961, Mr. Kimmins submitted a short supplementary note on the history of the name *Perla* (*Bull. zool. Nomencl.* **18** : 136). The proposals were supported by Dr. W. E. Ricker (*Bull. zool. Nomencl.* **18** : 136), Dr. O. Winkler (*Bull. zool. Nomencl.* **18** : 280) and Dr. Per Brinck.

DECISION OF THE COMMISSION

On 1 December 1961 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (61)37 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 88–89. At the close of the prescribed Voting Period on 1 March 1962 the state of the Voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: Evans, Holthuis, Hering, Riley, Uchida, Vokes, Mayr, Jaczewski, Obruchev, Kühnelt, Bonnet, Brinck, Munroe, Lemche, Stoll, do Amaral, Key, Tortonese, Borchsenius, Mertens, Miller, Alvarado, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—two (2): Boschma, Hemming.

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

bicaudata, *Phryganea*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 548
bipunctata, *Perla*, Pictet, 1833, *Ann. Sci. nat., Paris* **28**(109) : 55
Diura Billberg, 1820, *Enum. Ins. Mus. Billberg* : 96
Perla De Geer, 1773, *Mém. Hist. Ins.* **3** : 567
Perla Geoffroy, 1762, *Hist. abrég. Ins. Paris* **2** : 229
Perla Retzius, 1783, *in* De Geer, *Gen. Spec. Ins.* : 50
PERLARIAE Latreille, [1802–1803], an incorrect original spelling for PERLIDAE q.v.
PERLIDAE Latreille, [1802–1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 292

CERTIFICATE

WE certify that the votes cast on Voting Paper (61)37 were cast as set out above, that the proposal set out in that Voting Paper was duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 645.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
14 *March* 1962

OPINION 646

DORALIS LEACH, 1827 (INSECTA, HEMIPTERA); SUPPRESSION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the generic name *Doralis* Leach, 1827, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(b) all designations of type-species for the nominal genus *Metopeurum* Mordvilko, 1914, made prior to the present Ruling are hereby set aside and the nominal species *Metopeurum fuscoviride* Stroyan, 1950, is hereby designated to be the type of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Metopeurum* Mordvilko, 1914 (gender: neuter), type-species, by designation under the plenary powers in (1)(b) above, *Metopeurum fuscoviride* Stroyan, 1950 (Name No. 1503);

(b) *Semiaphis* Van der Goot, 1913 (gender: feminine), type-species, by monotypy, *Aphis carotae* Koch, 1854 (Name No. 1504);

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *fuscoviride* Stroyan, 1950, as published in the binomen *Metopeurum fuscoviride* (type-species of *Metopeurum* Mordvilko, 1914) (Name No. 1862);

(b) *dauci* Fabricius, 1775, as published in the binomen *Aphis dauci* (Name No. 1863).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Doralis* Leach, 1827 (as suppressed under the plenary powers in (1)(a) above) (Name No. 1586);

(b) *Pharalis* Leach, 1827 (a nomen nudum) (Name No. 1587).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *pini* Leach, 1827, as published in the binomen *Doralis pini* (a nomen nudum) (Name No. 723);

(b) *ulmi* Leach, 1827, as published in the binomen *Doralis ulmi* (a nomen nudum) (Name No. 724);

(c) *rumicis* Leach, 1827, as published in the binomen *Doralis rumicis* (a nomen nudum) (Name No. 725);

(d) *cerasi* Leach, 1827, as published in the binomen *Pharalis cerasi* (a nomen nudum) (Name No. 726);

(e) *absinthii* Leach, 1827, as published in the binomen *Pharalis absinthii* (a nomen nudum) (Name No. 727);

Bull. zool. Nomencl., Vol. 20, Part 1. March, 1963.

(f) *salicis* Leach, 1827, as published in the binomen *Pharalis salicis* (a nomen nudum) (Name No. 728);
(g) *vitis* Leach, 1827, as published in the binomen *Pharalis vitis* (a nomen nudum) (Name No. 729);
(h) *populi* Leach, 1827, as published in the binomen *Pharalis populi* (a nomen nudum) (Name No. 730);
(i) *tanaceti* Leach, 1827, as published in the binomen *Pharalis tanaceti* (a nomen nudum) (Name No. 731).

HISTORY OF THE CASE (Z.N.(S.) 583)

The present case was first submitted to the office of the Commission in June 1951 by Dr. F. C. Hottes. An application was prepared by Dr. W. E. China, Assistant Secretary to the Commission, which was sent to the printer on 22 September 1960 and published on 14 April 1961 in *Bull. zool. Nomencl.* **18** : 143–145. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials.

The following letter expressing support for the proposals and correcting two errors of fact in the application was received from Mr. H. L. G. Stroyan (6.vi.61) : " I wish to support the proposals made in the paper, but to add two comments on points that I believe to have been mis-stated in the proposal as published. These are :

(1) On pages 144 and 145 the date ascribed to the paper by Stroyan (*Trans. 8th Int. Congr. Ent.* 1948) in which the identity of *Aphis tanaceti* Linnaeus was discussed is 1952. The date of publication according to the cover and title-page of the Transactions of the Congress was 1950, and separata of the paper referred to were certainly available and distributed in that year.

(2) The nominal type-species of *Metopeurum* Mordvilko is so by monotypy, not by subsequent monotypy, since Mordvilko in 1914 gave a figure in which the generic name was used in association with the specific epithet *tanaceti* Linnaeus, and this figure moreover was adequate to establish the fact that Mordvilko had misidentified the species that he called by this name. It was on the authority of this figure that *tanaceti* auctt. nec Linnaeus (=*fuscoviride* Stroyan) was placed in *Metopeurum* by Stroyan (1950). Had the first association of the name *Metopeurum* and *tanaceti* been in Mordvilko's Food-plant Catalogue of 1929 the ascription of *fuscoviride* to *Metopeurum* would have been less securely based than was in fact the case ".

Further support for the proposals was received from Miss L. M. Russell, Miss M. A. Palmer and Dr. F. Ossiannilsson (*Bull. zool. Nomencl.* **18** : 311).

DECISION OF THE COMMISSION

On 1 December 1961 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (61)40 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 144–145. At the close of the prescribed Voting Period on 1 March 1962 the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: Evans, Holthuis, Hering, Riley, Uchida, Vokes, Mayr, Obruchev, Kühnelt, Bonnet, Brinck, Munroe, Lemche, Jaczewski, Stoll, do Amaral, Key, Tortonese, Borchsenius, Mertens, Miller, Alvarado, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2): Bradley, Prantl.

Voting Papers not returned—two (2): Boschma, Hemming.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

absinthii, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

cerasi, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

dauci, *Aphis*, Fabricius, 1775, *Syst. Ent.*: 737

Doralis Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

fuscoviride, *Metopeurum*, Stroyan, 1950, *Trans. 8th Int. Congr. Ent.* 1948: 999–1001

Metopeurum Mordvilko, 1914, *Faune de la Russie, Ins. Hémipt.*, Aphidodea (1): 67

Pharalis Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217–218

pini, *Doralis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

populi, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 218

rumicis, *Doralis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

salicis, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

Semiaphis Van der Goot, 1913, *Tijdschr. Ent.* **56**: 105

tanaceti, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 218

ulmi, *Doralis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

vitis, *Pharalis*, Leach, 1827, *in* Risso, *Hist. nat. princip. Prod. Europ. mérid.* **5**: 217

CERTIFICATE

WE certify that the votes cast on Voting Paper (61)40 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted

under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 646.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature

London
14 *March* 1962

OPINION 647

CICADELLA LATREILLE, 1817 (INSECTA, HEMIPTERA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Cicadella* Duméril, 1806, and all other uses of that generic name prior to that by Latreille, 1817, are hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

- (a) *Cicadella* Latreille, 1817 (gender: feminine), type-species, by designation by Van Duzee, 1916, *Cicada viridis* Linnaeus, 1758 (Name No. 1505);
- (b) *Eupteryx* Curtis, 1831 (gender: feminine), type-species, by designation by Curtis, 1837, *Cicada picta* Fabricius, 1794 (Name No. 1506).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

- (a) *viridis* Linnaeus, 1758, as published in the binomen *Cicada viridis* (type-species of *Cicadella* Latreille, 1817) (Name No. 1864);
- (b) *atropunctata* Goeze, 1778 as published in the binomen *Cicada atropunctata* (Name No. 1865).

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

- (a) CICADELLIDAE Latreille, 1825 (type-genus *Cicadella* Latreille, 1817) (Name No. 334);
- (b) TETTIGONIIDAE Krauss, 1902 (type-genus *Tettigonia* Linnaeus, 1758) (Insecta, Orthoptera) (Name No. 335);
- (c) LEDRIDAE Kirschbaum, [1867] (type-genus *Ledra* Fabricius, 1803) (Name No. 336).

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

- (a) *Cicadella* Duméril, 1806 (as suppressed under the plenary powers in (1) above) (Name No. 1588);
- (b) *Tettigella* China & Fennah, 1945 (a junior objective synonym of *Cicadella* Latreille, 1817) (Name No. 1589);
- (c) *Cicadella*, all uses of, prior to that by Latreille, 1817 (as suppressed under the plenary powers in (1) above) (Name No. 1590).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

- (a) TETTIGONIDES Amyot & Serville, 1843 (type-genus *Tetigonia* Geoffroy, 1762) (based on an unavailable generic name) (Name No. 364);

(b) TETTIGELLINAE Evans, 1947 (type-genus *Tettigella* China & Fennah, 1945) (a junior objective synonym of CICADELLIDAE Latreille, 1825) (Name No. 365);

(c) AMBLYCEPHALINAE China, 1939 (type-genus *Amblycephalus* Curtis, 1833) (invalid because based on a junior homonym) (Name No. 366).

HISTORY OF THE CASE (Z.N.(S.) 457)

The present case was first submitted to the office of the Commission in March 1950 by Dr. W. Wagner. Since the position as regards family-group names was complicated, proposals for the Commission were finally drafted by the Assistant Secretary of the Commission, Dr. W. E. China, in consultation with other specialists. Dr. China's application was sent to the printer on 18 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 163–167. Public notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials.

As a result of a criticism by Dr. Holthuis the proposals as originally set out by Dr. China were amended by a note published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 327. The proposals were supported by Dr. Frej Ossiannilsson (*Bull. zool. Nomencl.* **18** : 327), Dr. H. H. Ross (*Bull. zool. Nomencl.* **18** : 356), Dr. W. Wagner and Dr. J. Dlabola. An objection received from Dr. W. J. Le Quesne was published in *Bull. zool. Nomencl.* **19** : 64.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)1 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 166–167 and as amended on page 327. At the close of the Voting Period on 7 May 1962 the state of the voting was as follows :

Affirmative Votes—twenty-one (21), received in the following order : Hering, Evans, Munroe, Mayr, Vokes, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Borchsenius, Alvarado, do Amaral, Tortonese, Bradley, Jaczewski, Boschma, Mertens, Poll.

Negative Votes—two (2) : Holthuis, Stoll.

Leave of Absence—two (2) : Brinck, Prantl.

Voting Papers not returned—two (2) : Hemming, Obruchev.

The following comments were made by Commissioners in returning their votes :

Dr. L. B. Holthuis (14.ii.62) : " In casting a negative vote on this case I feel that I have to give my arguments. It is my belief that there is not sufficient reason here for the use of the plenary powers. If I read the application correctly, the name *Cicadella* Latreille, 1817, was reintroduced in 1916 by Van Duzee, the name until then having been overlooked by authors. In 1939 the name *Cicadella* Duméril, 1806, was revived by China, and *Cicadella* Latreille, 1817, rejected. For 23 years thus (1916–1939) *Cicadella* Latreille was considered the correct name and also for exactly 23 years (1939–1962) *Cicadella* Duméril was known to be correct.

"As Le Quesne showed, there are a great number of modern authors who have followed China in using *Cicadella* Duméril, and that there is a trend to use this name more and more. Therefore it seems best not to turn the clock back, but to accept the use of the various names as they legally are under a strict application of the Code."

Professor J. Chester Bradley (16.iv.62) : " Jacobi, 1904 wrote :
' *Tettigoniella* n.n.
= *Tettigonia* auct. (Nec. L. nec. F.).
= *Tetigonia* Geoffroy (1762) '
Then he went on to prove that *Tetigonia* Geoffroy was a homonym of *Tettigonia* L., even though not spelled with a double ' t ' and that it is moreover invalid, because Geoffroy's work is not binary.

" One of the ' indications ' that may serve to validate a generic name, if proposed prior to 1931 (Code Art. 12) is in the case that that name is proposed as a new name to replace a previously established name (Art. 16a (iii)). By ' established name ' is meant ' made available in the meaning of the Code ' (cf. Glossary).

" Since *Tetigonia* Geoffroy was not an available name, and ' *Tettigonia* auct. nec. L.' was an unnamed concept, Jacobi actually established a new genus (not merely a new name) and its type-species must be chosen from one of the two species that he included, namely : *Tettigonia nigrinervis* Stål, 1866, or *Tettigonia albida* Signoret, 1853.

" Since an unavailable generic name, like ' Tetigonia' Geoffroy has no nomenclatural status whatsoever, it cannot be regarded as having a type-species. From these considerations it is apparent that *viridis* is not type of *Tettigoniella*, and that the place of the latter in synonymy can only be established when its proper type-species is chosen, which I hope that the assistant secretary, as a specialist in Hemiptera, will now do."

Designation of type-species for *Tettigoniella*

The Assistant Secretary, as a specialist in Hemiptera hereby designates *Tettigonia nigrinervis* Stål, 1866 (*Hemipt. Afr.* 4 : 116) as the type-species of the genus *Tettigoniella* Jacobi, 1904 (*Zool. Jahrb.* **19** : 778) thereby sinking it as a junior subjective synonym of *Poeciloscarta* Stål, 1869 (*K. svensk. Vetensk. -Akad. Handl.* **8** : 73). *Tettigoniella* Jacobi therefore, and the family-group name TETTIGONIELLIDAE Melichar, 1905, have not been placed on the Official Index as recommended in *Bull. zool. Nomencl.* **19** : 167, (5)(b) and (6)(c).

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :
AMBLYCEPHALINAE China, 1939, *Ann. Mag. nat. Hist.* (11)**4** : 587
atropunctata, Cicada, Goeze, 1778, *Ent. Beytr.* **2** : 162

Cicadella Duméril, 1806, *Zool. Analyt.* (Paris ed.) : 266
Cicadella Latreille, 1817, *in* Cuvier, *Règne Anim.* **3** : 406
CICADELLIDAE Latreille, 1825, *Fam. nat. Règne Anim.* : 427
Eupteryx Curtis, 1831, *Guide Arrang. Brit. Ins.* **6** : 192
LEDRIDAE Kirschbaum, [1867], *Jahrb. nassau. Ver. Naturk.* **21/22** : 14
Tettigella China & Fennah, 1945, *Ann. Mag. nat. Hist* (11)**12** : 711
TETTIGELLINAE Evans, 1947, *Trans. roy. ent. Soc. London* **98**(6) : 157
TETTIGONIDES Amyot & Serville, 1843 (Roret's Suites à Buffon), *Hist. nat. Ins. Hémiptères* : 569
TETTIGONIIDAE Krauss, 1902, *Zool. Anz.* **25** : 541
viridis, *Cicada*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 438

The following are the original references for designations of type-species for two genera concerned in the present Ruling :

For *Cicadella* Latreille, 1817 :	Van Duzee, 1916, *Checklist of Hemiptera of America North of Mexico* : 66
For *Eupteryx* Curtis, 1831 :	Curtis, 1837, *Brit. Ent.* **14** : pl. 640

CERTIFICATE

We certify that the votes cast on Voting Paper (62)1 were cast as set out above, that the proposal set out in that Voting Paper, with the exception of paragraphs (5)(b) and (6)(c) has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission is truly recorded in the present Opinion No. 647.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
10 *May* 1962

OPINION 648

CONOMELUS FIEBER, 1866 (INSECTA, HEMIPTERA) ; DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Conomelus* Fieber, 1866, made prior to the present Ruling are hereby set aside, and the nominal species *Delphax anceps* Germar, 1821, is hereby designated to be the type of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Conomelus* Fieber, 1866 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Delphax anceps* Germar, 1821 (Name No. 1507) ;

(b) *Euconomelus* Haupt, 1929 (gender : masculine), type-species, by original designation, *Delphax lepida* Boheman, 1847 (Name No. 1508).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *anceps* Germar, 1821, as published in the binomen *Delphax anceps* (type-species of *Conomelus* Fieber, 1866) (Name No. 1866) ;

(b) *lepida* Boheman, 1847, as published in the binomen *Delphax lepida* (type-species of *Euconomelus* Haupt, 1929) (Name No. 1867).

(4) The specific name *limbata* Fabricius, 1794, as published in the binomen *Fulgora limbata* (a junior primary homonym of *limbata*, *Fulgora*, Olivier,1791) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 732.

HISTORY OF THE CASE (Z.N.(S.) 468)

The present case was submitted to the office of the Commission by Dr. W. Wagner in June 1950. Dr. Wagner's application was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 168–169. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. W. J. Le Quesne.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)2 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 169. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Holthuis, Evans, Mayr, Vokes, Munroe, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Tortonese, Bradley, Jaczewski, Boschma, Mertens, Poll.

Negative Votes—none (0).

Leave of Absence—two (2): Brinck, Prantl.

Voting Papers not returned—two (2): Hemming, Obruchev.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion:

anceps, *Delphax*, Germar, 1821, *Mag. Ent.* **4** : 105
Conomelus Fieber, 1866, *Verh. zool.-bot. Ges. Wien* **16** : 520
Euconomelus Haupt, 1929, *Zool. Jahrb.*, Syst. **58** : 212
lepida, *Delphax*, Boheman, 1847, *Öfv. svensk. Vetensk.-Akad. Förh.* **1847** : 265
limbata, *Fulgora*, Fabricius, 1794, *Ent. syst.* **4** : 6

CERTIFICATE

WE certify that the votes cast on Voting Paper (62)2 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 648.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
11 *May* 1962

CASE No. 5

REQUEST FOR CLARIFICATION OF ARTICLE 59 ON SECONDARY HOMONYMS. (Z.N.(S.) 1550)

Document 5/1

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

Article 59c of the 1961 Code makes it quite clear that names rejected *after* 1960 as junior secondary homonyms are to be restored where needed in taxonomic situations wherein the formerly-existing state of homonymy no longer persists. It is perhaps implicit that names rejected *before* 1961 as junior secondary homonyms can never be restored as valid names regardless of the subsequent course of homonymy. Surely, however, an explicit statement is in order. Problems involving secondary homonymy are so frequently encountered that fully explicit directives are a necessity if troublesome uncertainty of application of nomenclatural rules is to be avoided.

Document 5/2

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

In Article 59c it is only stated what procedure has to be adopted for dealing with secondary homonyms that are rejected after 1960, but not what to do with those rejected before that date. Therefore at the end of this paragraph should be added : " Secondary homonyms rejected before 1961 for reasons of homonymy, whether or not accepted by the rejecting author, cannot be used again ".

Document 5/3

By the Committee on Nomenclature of the Entomological Society of America. Chairman, Curtis W. Sabrosky

The following proposal for amendment of the International Code of Zoological Nomenclature is made herewith on behalf of the Committee. Time did not permit review of the text by the members of the Committee and the responsibility for this rests with the Chairman, who drafted it after receiving comments from the Committee.

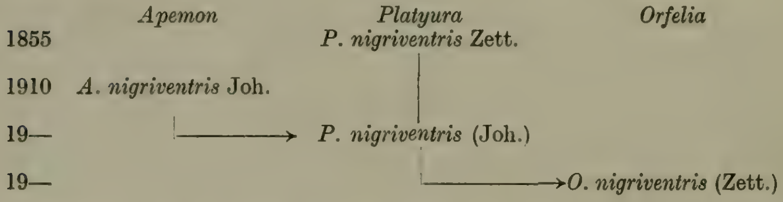
Article 59c (Revival of Secondary Homonyms)

A majority of the Committee proposes that this Section and references to it be repealed, and that all homonymy be returned to the " once renamed, always renamed " rule. This rule is simple and direct, is consistent with past nomenclatural usage, and avoids vacillating nomenclature in complex and taxonomically young groups where differences of opinion and shifts of classification are relatively frequent.

Article 59b (Secondary Homonyms)

The Committee members are not in agreement on whether the situation outlined below is covered by the Code, nor do they agree on the answer to the question that is propounded. However, the situation appears to be very common, and it should be clearly and unequivocally covered by a rule, based on whatever decision is made.

Homonymy in names of the species-group is a simple matter for primary homonyms, and clearcut for secondary homonyms in which both senior and junior names were first proposed in different genera and later brought together in a third genus. The situation is not so clear when one name is primary, i.e., originally published in the genus in question, and one is transferred in from another genus (secondary). It will be useful to consider an example. (Two of the dates are unknown to me, but exactness is not necessary for purposes of the example).



Question : In the genus *Platyura* today, does *nigriventris* Johannsen need replacement, by a new name or by a synonym (if available) ?

One group of members believes that it does. Even though the zoological species *nigriventris* Zetterstedt is transferred to *Orfelia*, and the name with it, the name *nigriventris* Zetterstedt also remains in *Platyura* and always will. The name *nigriventris* cannot again be validly proposed in *Platyura ;* it would seem logical and consistent to rule that a junior name *nigriventris* cannot secondarily be brought into *Platyura* and used there.

Other members believe that the situation as a whole is one of secondary homonymy, that it is governed by Article 59b, and that replacement is not necessary.

It may also be noted that the new Code does not specifically state that it is unnecessary to rename a junior secondary homonym that has escaped from a situation of secondary homonymy, though this may be inferred from Article 59b. A positive statement of this can be worked into the Article at the same time that the above problem is covered.

Solution A

To add two Subsections to Article 59b :

" 59b(i). If a situation of secondary homonymy existed at some time but has been overlooked, and the taxa in question are no longer congeneric, the junior name is not to be rejected ".

" A species-group name is always present, nomenclaturally, in the nominal genus in which it was originally proposed, and thus it preoccupies any identical and junior name that is transferred into that nominal genus".

Solution B

To add a new Subsection to Article 59b :

" 59b(i). If a situation of secondary homonymy existed at some time but has been overlooked, and the taxa in question are no longer congeneric, the junior name is not to be rejected, even though the senior name was originally proposed in the current genus of the junior name ".

CASE No. 6

REQUEST FOR REVISION OF THE 1961 CODE TO INCLUDE DIRECTIVES RELATIVE TO NOMINA DUBIA. (Z.N.(S.) 1551)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

The omission of any directives relative to *nomina dubia* in the 1961 Code is a serious deficiency. The defence has been proposed that problems pertaining to *nomina dubia* are strictly zoological decisions. This is not wholly the case. Some decisions *are* strictly zoological, to be sure, but others are equally strictly nomenclatural, and for the latter taxonomists urgently need procedural rules.

It is generally envisaged, and here accepted, that names accompanied by descriptions which are in themselves inadequate for determination, and which on these ground might rightfully be called *nomina dubia*, are in practice not so considered if types are available and identifiable. In actual practice a name is considered a *nomen dubium* only if the types, as well as the description, prove to be inadequate for fixation of the name with known species. This can occur if the types are lost or for other reasons are unavailable for study, or if the types are actually in such poor condition that identification even with them in hand is impossible.

Strictly nomenclatural questions that can arise concerning *nomina dubia*, as thus defined, include the following :

(a) Is it permissible for subsequent students arbitrarily (knowingly or not) to fix a *nomen dubium* with a known species ?

(b) If so, what limitation on fixation is imposed ? That is, can it not be demanded that any fixation accepted conform with all known facts, and that any attempt at fixation shown to be inconsistent with all known facts loses its priority ?

(c) If *nomina dubia* can be fixed within the sanction of the rules, does the " first reviser's " fixation take precedence over anyone else's ?

(d) What authorship and date accompanies fixation ? Does the name retain the original date and authorship ?

(e) If the types of *nomina dubia* are at hand but are useless for name-fixation may a subsequent reviser substitute neotypes for them, retaining the original date and authorship ?

It is surely possible for the Commission to prescribe answers to these and no doubt other strictly nomenclatural problems posed by *nomina dubia*. A start was made many years ago in Opinion 136, and a noteworthy effort to continue the search for proper directives is evident in voluminous subsequent discussions, even including the *Copenhagen Decisions* (1953 : 24–25, 77) and the Bradley preliminary draft of the Code (1958, *Bull. zool. Nomencl.* **14** : 46–47). These should provide most of the data and views essential to an effective review of the problem of *nomina dubia* by the Commission.

Bull. zool. Nomencl., Vol. 20, Part 1. March, 1963.

CASE No. 7

REQUEST FOR REVISION OF CERTAIN DEFINITIONS IN THE 1961 CODE. (Z.N.(S.) 1552)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

The inclusion of a glossary with concise definitions of terms used in the 1961 Code was a very useful innovation that surely must be welcomed by most taxonomists. Certain definitions are, however, in need of rectification or reconsideration, and some terms could well be added. Suggestions for such modifications are here presented for consideration by the Commission.

The Units of Classification. The definitions given of family, subfamily, genus, subgenus, species, and subspecies are in part highly dubious. Each is defined in two ways : (1) as a category of a given level, and (2) as a taxon of that category. In reality only the second definition is valid at least on the basis of usage ; certainly reference to, for example, generic or specific categories implies only that these categories are composed of units of generic or specific rank—of genera or species. The hierarchy of units of classification—the Phylum, Class, Order, etc.—as commonly explained does indeed list these units as though they were the categories themselves, but it is surely always implicit that in reality these are merely the names applied to the units comprising the categories. Reference to " *the* genus " or " *the* species " is surely to the *concept* of the *units* known as genera or species, not to the category. There are categories comprised respectively of families, subfamilies, genera, subgenera, species and subspecies, to be sure, but they are not thereby known as the family, subfamily, etc.

Binomial Nomenclature. Although adopted officially by the 1961 Code, the term " binominal nomenclature " seems quite inappropriate for the system of species-group nomenclature—that is, Linnaean nomenclature—that has been practiced for 200 years in zoology. Trinominal nomenclature, commonly practiced as a part of modern taxonomy and certainly covered by the official Code for more than fifty years, is by etymological indication not included in " binominal nomenclature ". The impropriety of use of the latter term in the general sense of the 1961 Code stems from the perfectly acceptable restriction there adopted of the terms " binomen " and " trinomen " to be the two-term and three-term names for species and subspecies respectively. The system is, therefore, in reality no more " binominal " in its entirety than it is " trinominal ". The long accepted term " binomial nomenclature " is far more preferable in the inclusive sense since (1) it has a 200-year history of usage in that sense in very extensive popular as well as scientific literature ; (2) it is still used by influential taxonomists, as well as popular textbooks, in that sense ; (3) it is etymologically and conceptually correct ; and (4) there is no acceptable rationale for refusal to admit the existence of the established practice or for the attempt to impose a different practice. The binomial system, as generally understood, is a two-*rank* system of names, and it can therefore include any number of actual names, from binominals to quadrinominals or more ; by common understanding established over centuries of usage " binomial nomenclature " has acquired a clear implication of " two-rank " nomenclature (i.e., the genus-group name or names, combined with the species-group name or names). Attempts to impose this meaning upon " binominal " makes that word less useful in its restricted sense (as of the 1961 Code), and more ambiguous in any given context. It is not in harmony with the aims of such a precisely defined system of nomenclature as this deliberately to impose two meanings on one word, especially when established practice has already differentiated separate terms for the two meanings.

Several years ago I submitted a similar request for reconsideration of " binomial nomenclature " in the sense here recommended, but as published (1958, *Bull. zool. Nomencl.* **15** : 1097–9) it took the form of a request for use of " binary nomenclature " in the broad sense of the presently officially adopted " binominal nomenclature ". Clearly the comments laying that particular proposal to rest (1958, *Bull. zool. Nomencl.* **15** : 1101), referring especially to the able demonstration by Hemming (1950, *Bull. zool. Nomencl.* **5** 152–167) of the complete synonymy of " binary " and " binominal ", are quite valid. No brief can now be held for a distinction to those two terms ; the Commission's choice of " binominal " in preference to " binary " is incontrovertibly sound and " binary " may be considered as permanently eliminated from consideration.

On the contrary, the present proposition is that the binominal system consistently applied by Linnaeus is in fact an aspect of a grander concept of two-rank nomenclature—binomial nomenclature—recognized by an increasingly large proportion of taxonomists and as universally practiced in modern taxonomy. Modern binomial nomenclature is improved and refined, as compared with the strictly binominal nomenclature of Linnaeus, in much the same way that the modern understanding of evolution is improved and refined as compared with evolution as understood by Darwin. Yet the basic evolutionary concept is of Darwin, and in the same way the basic binomial concept of nomenclature stems from Linnaeus, even though he did not practice anything more sophisticated than a binominal type of binomial nomenclature. It is important to recognize that the two different ideas, even though basically related, are involved, and that they are best conveyed by the terms " binomial " and " binominal ".

Trivial Name. Another definition that needs rectification is that of " trivial name ". As abundantly used in modern nomenclature of the past twenty years or so, the trivial name is not only the specific name (*sensu* Code 1961), but also the subspecific name ; the definition given in the 1961 Code limits it to the specific name. The useful characteristic of the term " trivial name " is that it is *not* limited to specific or to subspecific implications. In many situations of discussion a given trivial name, although certainly originally proposed as either a specific or a subspecific name, cannot in accuracy be referred to categorically as one or the other, at least when the population to which the name is attached is of uncertain relationship or when relationship should not enter into the particular consideration at hand.

Reconsideration of definition of " trivial " names was proposed in connection with the London Meetings (1958, *Bull. zool. Nomencl.* **15** : 1097–9), and received a commentary of rejection by Melville (1958, *Bull. zool. Nomencl.* **15** : 1100–3), who referred to decisions of the Paris Congress (1948, *Bull. zool. Nomencl.* **4** : 128) that " trivial " must always be preceded by the adjectives " specific " or " subspecific ". This in reality means that without such modifiers the term " trivial " refers to either or both categories, without limitation. This is exactly the sense for which the term is useful. Modified by " specific " or " subspecific ", the term is no better than or different in meaning from " specific name " or " subspecific name ", and naturally there is in this sense nothing to recommend its usage. It is in the *unspecified* sense that it is useful. Certainly the alternative suggested by Melville of " species-group name " in this context is far less desirable because of its length.

It is quite true that the term " trivial " (1) has been defined in different ways (*s.s.* and *s.l.*), and (2) that it has confusing meanings of " trifling " and " vernacular " in some contexts (Mayr, Linsley and Usinger, 1953, *Methods and principles of systematic zoology* : 246–8). These facts do detract from the value of the word, in the sense here intended. The dilemma could be readily solved by either of two solutions. For one, the Commission could arbitrarily limit the taxonomic meaning of " trivial " to the broad sense here proposed ; I am confident there would be relatively little objection to the course. Alternatively the Commission could devise or adopt some other equally desirable term lacking the shortcomings of the term " trivial ". Unfortunately lengthy substitutes such as " species-group name " are impractical, and no other term equally as brief as " trivial " is now in common usage. Regardless of the solution adopted, *some* term for names of infrageneric ranks of unspecified levels is essential, and the Commission should designate one. If the term " trivial " cannot be accepted, then some alternative such as " discriminative " or " differential " name, or " cognomen " or " prenomen " (see Mayr, Linsley and Usinger, *op. cit.* : 247) is in order. None of these substitutes actually can be readily assimilated—" as consistent with stability of nomenclature " —as the arbitrary restriction of the taxonomic definition of " trivial name ".

Nominal. Finally, the 1961 Code definition of " nominal " as given in reference to family, genus, and species, is clearly contrary to established usage. A nominal entity, as erroneously defined in the Code, is a *named* entity—the given entity itself, which bears a name. On the contrary " nominal " has almost invariably been used in the sense of the *name* itself, not the object or entity named. The nominal genus *Musca* is merely the name, not the " named genus ". It would be a distinct disservice to introduce a different usage, as of the 1961 Code, for this previously well-understood and soundly rational usage. The concept of " named " entity is adequately carried by the commonly accepted term " taxonomic " : a taxonomic species is an acceptably (in taxonomy) named species (as oppposed to species which have not been named).

Additional Terms. A number of other terms commonly used in taxonomy would be welcome additions for the glossary. Examples are *species name*, *subspecies name*, *hybrid*, *intergrade*, *nec*, *nobis*, *auctorum*, *sensu lato*, *sensu stricto*, *pro parte*, *nomenclature*, *nomenclatural*, *nomenclator* and *nomenclatorial* ; furthermore proper abbreviations for some of these terms (e.g., *nob.*, *auct.*, *s.l.*, *s.s.*, *p.p.*) as well as for the plural of species and subspecies (*spp.*, *subspp.*) should be specified. The term *nomen dubium* is also not adequately defined (see discussion in a separate petition, *Bull. zool. Nomencl.* **20** : 44).

CASE No. 8

REQUEST FOR EXTENSION AND CONSOLIDATION OF THE FIRST-REVISER PRINCIPLE IN REVISION OF THE 1961 CODE. (Z.N.(S.) 1553)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

The principle of priority of first-reviser decisions is utilized in Articles 24, 32, 69, 74 and 75 in connection with certain situations, but there are other situations in which that principle is of importance in practice or in theory. In at least seven situations is the principle of first reviser applicable, and these situations could well be presented in union in a revised Code : (1) choice among names of taxonomically simultaneous publication (Article 24) ; (2) choice of the type-species for a genus (Art. 69) ; (3) choice of type-specimen (lectotype or neotype) for a species (Arts. 74, 75) ; (4) choice of correct original spelling when for example several spellings were originally used, any one potentially correct (Art. 32b) ; (5) choice of taxon to which to restrict a *nomen dubium* (no covering article) ; (6) choice of taxon to which to restrict a name based upon a type subsequently determined to be a hybrid or intergrade (no covering article) ; and (7) choice of type locality restriction (perhaps implied by Rec. 72E).

The desirability of rules covering No. 5 above has been discussed in another petition (1963, *Bull. zool. Nomencl.* **20** : 44). Nos. 6 and 7 are discussed in the following paragraphs.

Type-locality Restriction. No doubt the relegation to a Recommendation (72E) of matters pertaining to type-locality restriction was dictated by the needs for brevity and simplicity, but at least two situations not covered even by the present recommendations are of sufficiently common occurrence to merit attention either by expansion of the recommendation or by inclusion in a separate article.

They are :

1. Occasionally a type-locality is restricted to rather broad limits, as for example to the Hawaiian Islands when it was originally stated Pacific Ocean. A subsequent reviser who desires to narrow the restriction to a given island or place on an island should be explicity required to observe the first reviser's restriction, not selecting a non-Hawaiian island, unless it can be shown that the earlier restriction is erroneous.

2. Occasionally a lectotype or neotype is selected that is not from the same locality as that to which the type-locality has previously been restricted without reference to specific types. The intent that any restrictions of any sort be consistent with each other is covered by Recommendation 74A, but curiously no statement is made of the course to follow if one restriction in reality is not consistent with another. Presumably restriction by type fixation has precedence, because of coverage by mandatory articles, over

restriction by type-locality-fixation alone, since the latter is covered only by optional recommendations. A revised Code should not leave this question to answer by ambiguous inference.

Hybrids and Intergrades. It is a curious fact that no mention is made in the 1961 Code of intergrades and only brief references to hybrids occur (Arts. 1, 17). It is curious because these are commonplace in modern taxonomic thought and because specific rules pertaining to names based upon them are necessary. For taxonomic purposes hybrids may be regarded as either interspecific hybrids or intersubspecific hybrids ; the latter are often regarded as " intergrades " but the two terms are not synonymous since non-hybrid intergrades between subspecies are well known as, for example, an insular population intermediate in character between (but not interbreeding with) adjacent insular populations on either side representing different subspecies. A clearcut definition of these terms would be useful in a modern Code.

The greatest question posed by hybrids and intergrades in taxonomy is the fate of names inadvertently based upon them. A clear cut directive should be added to the Code permitting such names arbitrarily and irrevocably to be fixed with either parent population by the first reviser.

Document 8/2

NAMES GIVEN TO HYBRIDS

By Ernst Mayr (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*)

Working with the Code last year, I discovered one disturbing omission. It relates to hybrids. Articles 1 and 17 clearly state that names given to hybrids as such have no standing in nomenclature, while names given in ignorance of the hybrid nature retain their standing. This unquestionably is wise because it prevents the confusing use of a homonymous name in the same genus.

Unfortunately, Article 17(2) seems to have confused some authors and I know of at least one case where an author has applied the name of a species hybrid to one of the parental species when for nomenclatural reasons the name of this parental species became unavailable. Such a transfer of a name from a hybrid to one of the parental species seems to me highly undesirable and in conflict with some of the basic principles of nomenclature :

(1) Hybridization is a potential form of species formation. This form of species formation is widespread in plants and may well occur also in animals. It would be most confusing if the same name could be used for one of the parental species and also for the descendant hybrid species.

(2) The type of the hybrid could not be used as " the standard of reference that determines the application " (Article 61) of the name because this specimen does not typify either of the parental species.

(3) A hybrid is not a composite, like a composite type series or an artifact, but an indivisible new combination of genes, producing an individual which no first reviser can separate into its elements.

For these reasons it should be made clear in the Rules somewhere that the name of a hybrid is of significance only in homonymy but not in synonymy. Perhaps one should add at the end of Article 24b the following sentence :

> " A name given to a species hybrid cannot be applied to either of the parental species."

If other proposals for changes in the Code are to be submitted to the Commission, it might be advisable to consider also the one suggested above.

CASE No. 9

REQUEST FOR INCLUSION IN ARTICLE 79 OF THE 1961 CODE OF A PROVISION FOR SUPPRESSION OF NAMES FOR PURPOSES OF THE LAW OF HOMONYMY ALONE. (Z.N.(S.) 1554)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

Article 79 specifies that names can be suppressed (1) for purposes of both the Laws of Priority and Homonymy, or (2) for purposes of the Law of Priority alone. It might, incidentally, be useful to state in somewhat simpler terms than are there used that the first course serves to free the same name of later date for a different taxon, whereas the second serves to free a different name of later date for the same taxon.

In addition and more importantly, however, provision should be made for suppression of names for purposes of the Law of Homonymy alone in order to free the same name of later date for a different taxon without loss of the earlier name. For example, in the situation wherein *A-us a-us* A. 1915 became *B-us a-us* in 1916, in family A, used consistently to 1960, and *A-us a-us* B. 1916 became *C-us a-us* in 1917 in family B, used consistently to 1960, the best solution to prevent disruption of established nomenclature would be to suppress *A-us a-us* A. 1915 for purposes solely of the Law of Homonymy, thus permitting *A-us a-us* A. 1915 (=*B-us a-us*) to be used as well as *A-us a-us* B. 1916 (=*C-us a-us*).

CASE No. 10

REQUEST FOR REVISION OF ARTICLES 68 AND 69 ON TYPE-FIXATION FOR GENERA. (Z.N.(S.) 1555)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

A serious omission exists in Article 69 relative to genera proposed before 1931 without originally designated or originally indicated type-species. If *no* nominal species were originally included, and a subsequent author includes an absolute tautonym in it without otherwise indicating type, surely a mandatory acceptance of " type by subsequent tautonymy " is in order, even as " type by subsequent monotypy " is of mandatory acceptance. It would be inconsistent not to accept " subsequent tautonymy " as a mandatory type-fixation.

Much less important but not without significance is the reference in Recommendation 69B to " virtual tautonymy " as a desirable *guide* to subsequent designation of a type-species of a genus. The examples given include not only literal " virtual " tautonyms, closely similar in spelling (e.g., *Scomber scombrus*), but also what might be regarded as *synonymic tautonyms* (e.g., *Equus caballus*), which are not at all alike in spelling but have identical meanings (or virtually so). It would be useful officially to distinguish between these two types of tautonyms.

Equally valid as a component of this recommendation would be the use of " hidden tautonymy " at least as a *guide* for subsequent selection of type, as described in the Bradley preliminary draft (1958, *Bull. zool. Nomencl.* **13** : 126).

Methods of Type Fixation for Genera. Articles 68 and 69 have a much greater potential degree of desirable parallelism than has been exploited explicitly. Four methods of type-fixation in the original publication are described by the 1961 Code : original designation, use of *typus* or *typicus*, monotypy, and absolute tautonymy. The modifications following would be desirable : (1) naming of the method of type-fixation by use of *typus* or *typicus* ; and (2) specification of the exact sort of monotypy and of absolute tautonymy here involved.

It is in reality specifically *original monotypy* and *original absolute tautonymy* that are involved in this context, as is implied by the provision of Article 69(a) (ii) (2) for " subsequent monotypy ". As for the method of type-fixation by use of *typus* and *typicus*, a suitable name might, for example, be " type by *original implication* ", with " implication " in this context meaning specifically the use of *typus* or *typicus*.

Article 69 of the 1961 Code lumps under the category of " type by subsequent designation " a fixation by " subsequent monotypy " ; it does not mention that the type may be fixed by " subsequent implication " or by

" subsequent absolute tautonymy ". The latter three methods of fixation are surely equal to and not kinds of " subsequent designation ", any more than original monotypy, original indication, or original absolute tautonymy are kinds of original designation.

Summary. It is therefore recommended : (1) that eight methods of type-fixation for genera be recognized in Articles 68 and 69 : (a) original designation, (b) original implication, (c) original monotypy, (d) original absolute tautonymy, (e) subsequent designation, (f) subsequent implication, (g) subsequent monotypy, and (h) subsequent absolute tautonymy ; (2) and that " virtual tautonymy ", " synonymic tautonymy " and " hidden tautonymy " be distinguished and recognized in recommendations appended to Article 69.

CASE No. 11

THE STATUS OF NAMES PUBLISHED IN AN INDEX. (Z.N.(S.) 1557)

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden,
The Netherlands*)

Article 11c(ii). This article is unnecessarily complicated and partly in contradiction to Article 11c. If an author in the text of his work uses polynomina and in the index binomina, then he has not consistently applied the principles of binominal nomenclature to his work and according to Art. 11c none of the names in this work is available. Under Art. 11c(ii), however, the names published in the index are available and this paragraph thus flatly contradicts the main text of the article, which I do not think has ever been the intention of the London Congress. The example given in Declaration 33 (1957, *Ops. Decls. int. Comm. zool. Nomencl.* **16**(14) : xxv–xxxviii) of Dru Drury's " Illustrations of Natural History " as a non-binominal work with a binominal index, is misleading. In the text of Drury's work no scientific but only vernacular names are given, the scientific names are only found in the index. This makes Drury's work a perfectly good consistently binominal book and the names in its index are certainly available.

Personally I do not see why names published in indexes should be differently treated from other names, if such names satisfy the Rules of Availability they are available. A name published in an index in my opinion is in no way different from any other name found elsewhere in a publication. Therefore I object not only to Art. 11c(ii), but also to Art. 16a(ii) in which it is stated that the inclusion of a name in an index is to be considered an " indication ". The indication making an index name available is the bibliographic reference to the main text of the publication and this type of indication is already taken care of in Art. 16a(i).

My suggestion now is to delete from the Code Article 11c(ii) and Article 16a(ii), and, since the controversy on index names makes a statement as to the status of these names desirable, to add to Article 17 a new paragraph which should read as follows : " (10) It was originally published in an index ". This shows that names are not automatically invalid just because they have been published in an index.

CASE No. 12

REQUEST FOR RECONSIDERATION OF CATEGORIES OF TYPES OF SPECIES AND SUBSPECIES RECOGNIZED BY THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE. Z.N.(S.) 1512

By Hobart M. Smith (*Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.*)

Many systematists continue to use the designation " paratype " for specimens of the type hypodigm of a species or subspecies, despite the strong arguments against such designation advanced by respected and influential authorities such as Simpson (1940), Williams (1940), and Mayr, Linsley and Usinger (1953 : 240). Defenders of the practice have proposed varied excuses for its retention (*e.g.* Newell, 1949), but their arguments have seemed relatively ineffective in the face of continued pressure for abandonment of it (*e.g.* Simpson, 1961 : 47, 186).

The arguments for excluding " paratypes " from official recognition (*i.e.*, by the International Commission on Zoological Nomenclature) have been based largely upon the view, with which I wholly agree, that the role in taxonomy of types of any sort must be strictly onomatophorical (name-bearing) for any given population. Perhaps part of the zeal focused upon elimination of the " paratype practice " may stem in part from the clearly unwarranted role the practice has played in the past in typological concepts of taxonomy, and perhaps this role or even baser ones has lurked behind the defences erected for the practice. However, equally repugnant roles have been held by the term " type ", which still receives official as well as authoritative acceptance. Nevertheless, Simpson correctly points out (1961 : 48) that " the dead hand of the past " outweighs the influence of reason in any proposal to replace the irrational term " type " with some rational terms such as " onomatophore ".

In like manner I see no prospect of replacement of the term " paratype " in its onomatophorical role ; in fact there is little reason to do so with retention of the term " type ". The question basically is, and has been, the exact onomatophorical role, if any, that could justify retention of the paratype concept, granting that retention is justified *only* if such a role is subserved. In my opinion paratypes do perform an important service in exactly that role—one which has not received adequate attention. An orderly presentation involves the following terms, all of which I here propose the International Commission on Zoological Nomenclature accept ; those indicated by an asterisk (*) have already been accepted by the Commission.

1. **Syntype*—one of two or more specimens of the type hypodigm in which no holotype is originally designated.

2. **Holotype*—the single specimen in a type hypodigm consisting of but one example, or, if more than one specimen is at hand, which is designated specifically as " the " type or holotype.

(a) Lectoholotype—a syntype (or paratype) specifically selected subsequently (*i.e., after the original description appears*) as " the " type, lectotype, lectoholotype or holotype. It must be a member of the syntype or paratype series.

(b) Autoholotype—a single member of the original hypodigm selected originally (*i.e., in the original description*) as " the " type or holotype.

3. *Paratype*—any member of the original hypodigm involving an autoholotype, if none is specifically designated as paratype, or any member specifically so designated if paratypes *are* designated in the original hypodigm that involves an autoholotype.

(a) Lectoparatype—any syntype, other than the lectoholotype, so designated automatically with selection of a lectoholotype : therefore, a paratype created *subsequently*, from the original hypodigm.

(b) Autoparatype—any paratype created *originally.*

4. *Hypoparatype*—any member of the original hypodigm specifically designated as a hypoparatype, or, if paratypes are designated, that is not designated as a paratype or holotype.

(a) *Lectohypoparatype*—any member of the original hypodigm, syntype or paratype, *subsequently* designated as a hypoparatype or lectohypoparatype, or which is designated as unfit for onomatophorical purposes.

(b) *Autohypoparatype*—a hypoparatype *originally* created.

*5. *Neotype*—a subsequently-designated onomatophore *not chosen* from the onomatophorically available original hypodigm (hypoparatypes not being onomatophorically available), therefore not from among the syntype or paratype series.

*6. *Type*—unless otherwise stated or revealed by context, the holotype.

*7. *Lectotype*—unless otherwise stated or revealed by context, the lectoholotype.

DISCUSSION

For taxonomic work not dependent upon previous work, the terms holotype, paratype and hypoparatype are adequate ; the terms lectotype and type are synonyms of other words and do not merit use except in reallocation of antiquated usages to more exact, modern expressions ; and the other terms are essential in taxonomic work which does involve previous studies.

The system of type terminology here proposed is simply a hierarchy of potential substitutes for a single, functional name-bearer. The concepts involved in it are completely harmonious with modern views and practices. Not in every instance is utilization of the finer subdivisions, as indicated by the prefixes, necessary or desirable, but certainly the concepts represented by the terms are essential in modern taxonomy, and in discussions of taxonomy terms for those concepts play an extremely useful role in providing for (1) clarity of thought, (2) brevity of expression and (3) crystallization of perspective.

The roots of the proposed system lie in the long-accepted equivalence of syntypes in exactly this role of provision of a *single* name-bearer for a taxon. In the modern realization that taxonomic types can serve one role as name-bearer, and that role only, the acceptance in current work of the now antiquated designation of a *series* of specimens—the syntypes—in the name-bearing role has been impossible. The " lectotype " concept has evolved in solution to this dilemma, with the selected lectotype serving as the name-bearer and the rest of the syntypes held in reserve to serve as lectotype II, lectotype III and so on, should the designated name-bearers become lost, destroyed or deteriorated beyond reasonable utility.

With acceptance of the lectotype concept the need in new taxonomic work for an originally-designated name-bearer became obvious, with the result that designation of a specific type specimen—*i.e.*, a specimen from the original type series or hypodigm under the name of holotype became common and accepted practice. The term " type " for this specifically-designated specimen was and remains of questionable merit since it fails to make clear that this specimen is a double designate—not only of the original hypodigm, but the specifically-designated name-bearer selected from that hypodigm.

For various reasons, none usually defendable, the practice of hallowing the rest of the original hypodigm, over and above the holotype, became common as the holotype concept grew in acceptance. After all, the entire original hypodigm *was* held in esteem in older taxonomic practice, and no sudden reversal, even with elevation in importance of one member of the hypodigm as the holotype, could be expected. The natural recourse was to designation of non-holotypic members of the original hypodigm as some other kind of type ; the convention of greatest popularity was designation of these " accessory " types as paratypes. The logical parallel with the lectotype-syntype situation is evident. The one thing that was not evident, or at least not widely so, was that the sole justification for the designation and existence of paratypes was for them to serve exactly the same role as the syntypes that remained after designation of a lectotype : as potential, substitute name-bearers, and as nothing else. Regardless of the original grounds for recognition of paratypes, I regard them as wholly justifiable on substitute grounds. Lacking such a mandatory tie to the original hypodigm, a totally acceptable sequel to loss, destruction or deterioration beyond reasonable utility of a holotype would be the substitute for it of a neotype not forming part of the original hypodigm, in deliberate disregard of the original hypodigm or because of difficulty in locating the components of the original hypodigm ; that such a practice should be regarded as ethically responsible and in the best interests of nomenclatural stability is inconceivable. Paratypes have exactly the same claim to recognition as non-lectoholotypic syntypes ; both are barriers to nomenclatural chaos.

With admission of acceptability of the paratype concept, however, the lectotype-syntype designations quite evidently leave something to be desired. A lectotype is in reality a lectoholotype, being a specific example of the syntype (or paratype) series selected to act as name-bearer ; the parallelism of lectotype and holotype is more exactly expressed by the renditions lectoholotype and autoholotype respectively—one " elected " subsequently, the other designated originally.

With admission of the holotype concept to the syntype situation, in the form of the lectoholotype, the remaining syntypes, in emphasis upon their role parallel to that of paratypes, are in reality lectoparatypes ; originally designated paratypes are autoparatypes. The distinction need not necessarily be recognized officially, but a definite advantage exists in such recognition through the emphasis it lends to the parallel role autoparatypes and lectoparatypes must serve in taxonomy. Named or not, the concepts exist and are valid ; acceptance of terms for them assure to a certain degree that the concepts will not be overlooked.

It is also evident that some examples of the original hypodigm frequently are quite inadequate to serve in a reasonably useful way as name-bearer, should circumstances ever reduce the consideration for selection of a substitute name-bearer to specimens not specifically designated as paratypes. Failure to designate certain specimens of the original hypodigm as paratypes, even though others are so designated, might be taken as implying that these are not to be recommended for use as substitute name-bearers. An explicit approach to the same end is outright indication of deficiency for a name-bearing role, through designation as hypoparatypes. The entire original hypodigm can thus be identified without attendant risk that marginally useful specimens would ever serve as name-bearers. Official admission of this term and concept would be highly useful.

Admission that some parts of the original hypodigm in new taxonomic work are not suitable as substitute name-bearers certainly finds its equivalent in old taxonomic work involving syntypes. Furthermore, specimens now perfectly acceptable as substitute name-bearers, either lectoparatypes or autoparatypes, may in the future become too damaged or deteriorated to serve reasonably effectively as name-bearers. It is therefore useful to admit the concept of lectohypoparatypes for specimens subsequently designated as unfit to serve as name-bearers, as opposed to autohypoparatypes for specimens originally designated as unfit. No obligation should exist to select an onomatophore from either sort of hypoparatype ; on the contrary such material should be avoided in onomatophore selection if at all possible. Classification by any author, originally or subsequently, of any paratypes or lectoparatypes as hypoparatypes (autohypoparatypes or lectohypoparatypes) should be admitted as officially removing those specimens from consideration as substitute name-bearers.

The International Code has, unfortunately, not been explicit in stating exactly to what degree substitute onomatophores *must be drawn* from the original type material, or to what degree original type material *may be excluded* from the requirement that they serve as potential substitute name-bearers. Decision on these points, or at least expression of recommendation, is a prerequisite to crystallization of these concepts and the terms that represent them. For example, the existing Code prescribes that lectotypes (lectoholotypes) can be designated only from syntypes ; therefore if an autoholotype is destroyed the substitute onomatophore would be a neotype, which in turn is to be designated only if no " holotype, lectotype or syntype " exists. Obviously if lectoholotypes must be selected from the syntype series in succession as they are lost or destroyed (as long as the syntype series remains in existence), logically *lectotypes*—not neotypes—selected from paratype series should replace lost or destroyed autoholotypes.

Furthermore, it should be explicit that the transformation of non-lectoholotypic syntypes to lectoparatypes leaves them still syntypes and therefore available for subsequent designation as lectoholotype II, III *et seq.* as losses demand.

Finally, the concept of inadequacy of some parts of a hypodigm ever to serve as name-bearers deserves official recognition, and with it the right of taxonomists to so designate any parts of their own or others' type hypodigms. This device then allows the taxonomist the liberty of designating a neotype even when some material of the original hypodigm is in existence. It might also be well to recognize officially that when, in revisionary work, even holotypes (either lecto- or auto-) are encountered that are inadequate for name-fixation, the taxonomist should have the right to reject such types and to substitute for them a neotype or lectoholotype in accordance with the conditions of the situation.

Summary

It is proposed that official recognition, and sanction of represented concepts and definitions as here set forth, be given by the International Commission on Zoological Nomenclature to the terms onomatophore, hypodigm, holotype, lectoholotype, autoholotype, paratype, lectoparatype, autoparatype, hypoparatype, lectohypoparatype, and autohypoparatype. It is suggested that designation of neotype or lectoholotypes be permitted in explicit substitution for existing onomatophores whose condition precludes reasonably secure allocation to known taxa.

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CASE No. 13

REQUEST FOR AMENDMENT OF THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE TO PRESCRIBE THE TREATMENT OF A SPECIES-GROUP NAME THAT IS BOTH A NOUN AND AN ADJECTIVE (Z.N.(S). 1562)

Document 13/1

By W. I. Follett and Lillian J. Dempster (*California Academy of Sciences, San Francisco, U.S.A.*)

The International Code of Zoological Nomenclature does not specify whether to regard as a noun or as an adjective a species-group name that can be regarded as either, where the original author did not clearly indicate which he considered it to be.

Examples of such names are the following :

1. The species-group name *cyprinella*, which has been stated by Jordan & Evermann, 1896, *Bull. U.S. nat. Mus.* **4** : 163, to be the " diminutive of *cyprinus*, carp ". These authors apparently regarded the species-group name *cyprinella* as a noun in apposition to the generic name, since they wrote *Ictiobus cyprinella*. On the other hand, Bailey, et al., 1960, *Amer. Fish. Soc. Special Publ.*, No. 2 : 17, apparently regarded this species-group name as an adjective, since they wrote *Ictiobus cyprinellus*.

2. The species-group name *vetulus*, which has been stated by Jordan & Evermann, 1898, *Bull. U.S. nat. Mus.* **4** : 2640, to mean " an old man ". These authors apparently regarded this species-group name as a noun in apposition to the generic name, since they wrote *Parophrys vetulus*. On the other hand, Günther, 1862, *Cat. Fishes Brit. Mus.* **4** : 455, apparently regarded this species-group name as an adjective, since he wrote *Parophrys vetula*.

3. Greek compounds, such as *xanthostigma* (meaning " yellow spot ").

4. Latin compounds, such as *atricauda* (meaning " black tail ").

Such compound species-group names have been referred to as nouns in apposition to the generic name (Hemming, 1950, *Bull. zool. Nomencl.* **4** : 240–242, 296). They have been regarded as adjectives as well (Miller, 1897, *Proc. Calif. Acad. Sci.* (3) **1** : 115–143).

If such a species-group name is regarded as an adjective, its termination must be changed to agree in gender with that of the generic name with which it is at any time combined (International Code of Zoological Nomenclature, 1961, Article 30).

If such a name is regarded as a noun in the nominative singular standing in apposition to the generic name (Article 11g(i)(2)), there would be no change of termination, regardless of the gender of the generic name.

In the absence of a definite rule for the treatment of such species-group names, a diversity of usage has been inevitable.

This problem was called to the attention of zoologists some years ago (Follett, 1956, *Syst. Zool.* **5** : 34–35), but has not been considered by the International Commission on Zoological Nomenclature.

We therefore request that the Code be amended to provide as follows :

1. That where the usage of the original author of a species-group name indicated that he regarded that name as a noun or as an adjective, the name is to retain the character so indicated.

2. That where the usage of the original author of a species-group name did not indicate whether he regarded that name as a noun or as an adjective, and the name is one that may be either a noun or an adjective, the name is to be regarded as a noun in apposition to the generic name.

Document 13/2

By R. G. Fennah (*Commonwealth Institute of Entomology, London*)

In Article 30 of the International Code it is stated that a species-group name, if an adjective in the nominative singular, must agree in gender with the generic name with which it is at any time combined, and its termination must be changed if necessary, when the species is transferred to another genus.

In Appendix D II, 10 it is recommended that in forming a zoological name from a word of classical origin the declension of the language of origin should be used.

The Commission is now asked to indicate how adjectives are to be recognized as such in cases where the original combination provides no clue (e.g. genus ending in *-ellus bifus*, *um melanosomum*, *-erum erratum*, *-enis zy£a*, *-sticha perinephes*, *-chis melanastra*). It is also asked to indicate how adjectival names belonging to the combined first and third declensions of Greek are to be transposed in gender (e.g. *mesomelas*, *talaena*, *megala*, *glycia*, *leiykyia*, *dicnusa*, *chariessa*, and other names such as *mysteris*, *medemia*).

CASE No. 14

PROPOSAL FOR RECONSIDERATION OF THE HIERARCHY OF NOMENCLATURAL STATUS OF GENERIC AND TRIVIAL NAMES AS RECOGNIZED IN THE CODE OF ZOOLOGICAL NOMENCLATURE (Z.N.(S.) 1565)

By Hobart M. Smith, (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois. U.S.A.*)

In spite of the existence of several published essays on the several levels of " availability " of trivial names in zoological nomenclature (Smith, 1945, *Science* **102** : 185–189 ; *idem*. 1947, **106** : 11 : *idem*. 1949, *Herpetologica* **5** : 11–18 ; Blackwelder, Knight and Smith, 1950, *Science* **111** : 289–290, reprinted in 1953, *Bull. zool. Nomencl.* **8** : 27–28), the 1961 Code is very vague in treatment of the subject, particularly in not making it clear that a name may be occupied, and therefore published, and still not available ; the Code is therefore not as clear-cut as it should be in use of the terms " published ", " occupied ", and " available ". It is here proposed that Chapters IV and V of the 1961 Code be expanded to describe a more clear-cut hierarchy of nomenclatural status of trivial names than it now does.

The hierarchy may usefully be thought of as consisting of five levels, as depicted in Fig. 1 and outlined as follows :

1. *Publication*
    A. Unpublished (nomina inedita)
    B. Published (nomina edita)
        2. *Occupancy*
            A. Unoccupied (nomina inoccupata)
            B. Occupied (nomina occupata)
                3. *Availability*
                    A. Unavailable (nomina inutibilia)
                    B. Available (nomina utibilia)
                        4. *Identifiability*
                            A. Dubious (nomina dubia)
                            B. Clear (nomina clara)
                                5. *Validity*
                                    A. Invalid (nomina invalida)
                                    B. Valid (nomina valida)

Publication

Publication under the 1961 Code is clearly set forth in Articles 7–9 of Chapter III. Any name which can be considered published by those criteria may then be considered from the standpoint of occupancy.

Chapter III confines itself to definition of publication on the basis of mode of reproduction and dissemination of the medium carrying the name, with one exception : names published anonymously after 1950. The latter inclusion is inconsistent and unnecessary, since Article 14 and 17(7) make it plain that such names are " unavailable " presumably in the sense of having been published but having no nomenclatural status. It would be unwise to follow this line of thought consistently and thus to designate all of the other 12 types of unavailable (but, as of now, " published ") names listed in the second following paragraph as unpublished. Failing that, consistency suggests that names published anonymously after 1950 simply be regarded as unavailable, not as unpublished, deleting item 7 from Article 9.

Occupancy

The most useful context of occupancy is in relation to *pre-occupancy :* an occupied name preoccupies, therefore renders a later proposal of the same name unavailable. *Unoccupied* names do not preoccupy. Four sorts of names are occupied, yet never available under automatic provisions of the Code : (1) junior primary homonyms (except those whose generic taxa, known by one name, are different, *fide* Article 57c) ; (2) generic names ending in *-ites*, *-ytes* and *-ithes* (Article 20) ; (3) names rejected by the Commission for purposes only of the Law of Priority but not for the Law of Homonymy (Art. 79(a)(ii)) ; and (4) junior secondary homonyms suppressed before 1961 (Art. 59c).

Many " published " names are, of course, " unoccupied " and therefore " unavailable " ; it should be made clear, however, that just because a name is unavailable it is not necessarily unoccupied. For example, Art. 19 states that incorrect spellings are unavailable ; more important, they are unoccupied as is made clear by Arts. 32c and 33b. Other examples of published names that are unoccupied are : (1) *nomina nuda ;* (2) names not using the Roman alphabet ; (3) names that are not Latinized if the Roman alphabet is used ; (4) non-binomial names ; (5) names proposed after 1930 which are based on the work of an animal, or for trivial names lack a diagnosis, or for generic names, lack a type designation ; (6) for a trivial name, absence of a generic allocation ; (7) citation of a name solely in the synonymy ; (8) after 1960, names proposed conditionally or for " variety " or " form " ; (9) names for infrasubspecific forms ; (10) names rejected by the Commission for purposes of both the Law of Priority and Law of Homonymy ; and (11) names improperly formed (Art. 11e–g). In addition, if deleted from Art. 9 as recommended in the preceding discussion of " publication ", a twelfth item should be added : (12) names published anonymously after 1950.

Three minor corrections in Chapter IV, whether altered to include the concept and category of occupancy, merit passing attention. Article 16(a)(viii) should include the limiting expression " before 1931 ", *fide* Article 24(b). Secondly, Article 17 should include an entry " before 1931, it was founded on the work of an animal ", *fide* Article 24(b). Thirdly, Article 17(5) should read " it was originally proposed for what is known now to be an organism but was not then considered an animal ; or ".

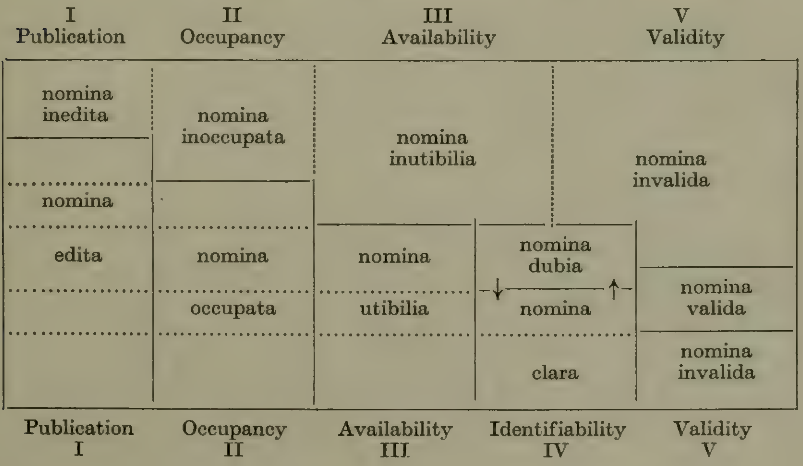
Availability

Available names are defined in the 1961 Code as those that satisfy the provisions of Chapter IV—a rather impractical definition since Chapter IV is five pages in length and includes 11 articles. By the interpretation here recommended, available names are *occupied names that can be used as valid names if they should become senior synonyms ;* unavailable names cannot be used as valid names even if they should become senior synonyms. The four sorts of names that are occupied but are never available under automatic provisions of the Code are listed in the first paragraph in the discussion of " occupancy ".

For the sake of simplicity it seems best not to require that the term " unavailable " be restricted to occupied names, or " unoccupied " to published names (Fig. 1) ; thus a name may be unavailable because it is unoccupied or unpublished as well as failing to satisfy the particular requirements of available names as opposed to other occupied names ; but not all unavailable names are unoccupied or unpublished. The terms are thus not used interchangeably, but in an overlapping sense ; all unpublished names are unoccupied and unavailable, and all unoccupied names are unavailable ; but only part of unavailable names are unoccupied, and only part of unoccupied names are unpublished. To make these terms mutually exclusive in the context of taxonomy would be unduly complex.

Identifiability

Unfortunately not all available names can readily be identified. A large number of them are quite conformant with requirements for availability but cannot definitely be allocated with the proper infrageneric taxon. Such names are *nomina dubia*, whereas names identifiable to the recognized infrageneric taxa are *nomina clara*. All nomina clara can readily be allocated to one or the other of the two divisions of the next level in the hierarchy (invalid and valid names), but nomina dubia by their very nature cannot as such advance in hierarchial consideration ; if by arbitrary fixation or discovery of new evidence they are placed with some definite taxon, they then no longer remain nomina dubia but become nomina clara and as such can be determined as valid or invalid names.


I
Publication
II
Occupancy
III
Availability
V
Validity
nomina inedita
nomina inoccupata
nomina inutibilia
nomina invalida
nomina edita
nomina occupata
nomina utibilia
nomina dubia
nomina clara
nomina valida
nomina invalida
Publication
I
Occupancy
II
Availability
III
Identifiability
IV
Validity
V

The "nomen oblitum" rule (Article 23b) does not require a new category in the hierarchy of nomenclatural status, because even though the status of such names is not specified they would naturally become unavailable either for the purposes of both the Law of Priority and the Law of Hononymy (therefore "unoccupied"), or for the purposes of the Law of Priority alone (therefore "occupied" but "unavailable").

Validity

Valid names are appropriately defined and their determination properly prescribed by the 1961 Code. A single useful addition would be the clear establishment that the category "invalid" is inclusive of the terms unavailable, unoccupied and unpublished, but not vice versa. The relationships of these terms is depicted in Fig. 1.

Fig. 1. Proposed nomenclatural loci for generic and trivial names in zoological taxonomy. Blocks are equivalent from right to left, and vice versa, as indicated by dotted lines; they are not equivalent from top to bottom. The two arrows indicate only that nomina dubia can become nomina clara, and vice versa; no other vertical exchange or equivalence exists under any one Code.

CASE No. 15

THE STATUS OF INFRASUBSPECIFIC NAMES (Z.N.(S.) 1569)

By Cyril F. Dos Passos (*Washington Corners, Mendham, N.J.*)

I propose that the International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology, London, July 1958 be amended by adding a new chapter thereto to be known as XA Infrasubspecific names. In support of the proposals that follow I wish to point out that:

> The question of recognizing names of lower catagories than species and subspecies appears to have originated at the XII International Congress of Zoology held at Lisbon in 1935 (2nd Meeting, Conclusion 17) but no action was taken at that time.
>
> The problem was considered in detail in 1948 at the Paris Congress when the Honorary Secretary, Mr. Francis Hemming, presented Commission Paper I.C. (48) 9 in which he reported at length on the subject and recommended that provisions regulating infrasubspecific names be incorporated into the *Régles* (1950, *Bull. zool. Nomencl.*, 4 : 81–82, 83–96). At that meeting, Mr. Hemming's views were generally accepted and such provisions were added to the *Régles*. The provisions were part of the *Régles* for ten years (1948–1958).
>
> The matter next came up at the Colloquium in Copenhagen in 1953 (Case No. 58) where a proposal was made for the withdrawal of recognition from names of less than subspecific rank. This proposal was rejected (1953, Copenhagen Decisions, pp. 83–84). Another proposal to postpone the coming into operation of, and to amend, the provisions relating to the naming of infrasubspecific forms adopted at Paris in 1948 (*op. cit.* No. 57) was also rejected.
>
> Acting in accordance with the Paris and Copenhagen decisions, Professor Bradley, President of the Commission, incorporated such provisions in Article 15 of the draft Code that was submitted to the Colloquium in London in 1958. There, short work was made of this article and all provisions relating to infrasubspecific names that had been part of the *Régles* for ten years were stricken out.
>
> In his preface to the 1958 Code (p.v.), adopted at London, Professor Bradley wrote:
>
>> The failure of the Code to deal with names of higher rank than superfamily or of lower rank than subspecies arises from no failure *to recognize the necessity of such names*. It exists because the practice of zoologists in regard to them is not sufficiently uniform to permit the formulation of rules covering them at this time. (italics mine)

While it may be true that the practice of zoologists with respect to names of higher rank than superfamily is not sufficiently uniform to permit the formulation of rules covering them that is not the case with names of lower rank than species and subspecies.

It is therefore proposed that a new article be added to the Code to read as follows:

Xa INFRASUBSPECIFIC NAMES

49A **Recognition of infrasubspecific names.**

(a) Infrasubspecific names are recognized by the Code for taxa of lower catagories than species and subspecies.

(b) In the event of any conflict between the rules governing species and subspecies and those governing infrasubspecific names the former rules shall prevail.

(c) The names of infrasubspecific forms are co-ordinate among themselves, but not with specific and subspecific names.

49B **Priority and Homonymy.**

(a) The Law of Priority and the Law of Homonymy shall apply independently to the two classes of names.

(b) Other rules that relate to specific and subspecific names shall apply equally to infrasubspecific names excepting those that would be obviously inappropriate.

49C **Articles of the Code applicable to infrasubspecific names.**

The following provisions of the Code apply specifically to infrasubspecific forms:

(a) **Article 10. When a name becomes available**

. . .

(b) **Infrasubspecific names.**—A name first established with infrasubspecific rank becomes available if the taxon in question is elevated to a rank of the species-group, and takes the date and authorship of its elevation.

(b) **Article 45. Taxa of the species-group**

. . .

(d) (iii) infrasubspecific, if the author, when originally establishing the name, either expressly referred the taxon to an infrasubspecific rank, or, after 1960, did not clearly state that it was a subspecies.

(e) Interpretation of the terms " variety " and " form "

(i) Before 1961, the use of either of the terms " variety " or " form " is not to be interpreted as an express statement of either subspecific or infrasubspecific rank.

(ii) After 1960, a new name published as that of a " variety " or " form " is to be regarded as of infrasubspecific rank.

49D **Designation of parallel infrasubspecific forms.**

Special designations of parallel infrasubspecific forms occurring in two or more allied species or their subspecies may be established but only by the Commission acting under its plenary powers.

Such designations:

(1) Shall consist of Latin or latinized words, or words treated as such,
(2) shall comply with all provisions in this Code relating to the formation, derivation, and orthography of specific names,
(3) shall have absolute priority over any name that may have been given to that form in any of the species concerned,
(4) shall have absolute priority over any other use of the same word as the name of any other infrasubspecific form of any species in the same genus or designated group of genera, and
(5) shall be exempt from invalidation under the Law of Homonymy.

49E. **Status of infrasubspecific names.**

(a) Subjective status of rank.—If a taxonomist does not recognize the taxonomic validity of the elevation of an established infrasubspecific form, he may retain its former name and status of priority and shall ascribe it to its original author.

(b) Reduction in rank.—If an established species or subspecies is subsequently reduced to infrasubspecific rank, it shall retain its original specific or subspecific name, with its original date priority and author.

49F **Citation of names.**

(a) Infrasubspecific names.—The designation of an infrasubspecific form shall consist of (1) the binomen or trinomen to which the infrasubspecific name is attached followed by (2) a comma and an expression indicating the status attributed to the form in question (e.g.: " form. vern.," or " ab.") and ending with (3) the name of the infrasubspecific form.

The language of the foregoing paragraphs is practically the same as that used by Professor Bradley. It has not been possible to improve upon it.

If this proposal is adopted I further propose that Articles 1, 15, 17(9) and 45c be amended by deleting the matter contained in brackets in the following quotations from those Articles:

Article 1 [to infrasubspecific forms as such,]

Article 15 [or one proposed explicitly as the name of a " variety " or " form " (Art. 45e),]

Article 17(9) [before 1961, it was proposed as a " variety " or " form ".]

Article 45(c) [Infrasubspecific forms.—Infrasubspecific forms are excluded from the species-group and the provisions of this Code do not apply to them [Article 1; see Article 10b].] and that the subdivisions of this article be relettered (a) (b) (c) and (d).

Glossary, p. 150

infrasubspecific, a. Of a category or name, of lower rank than the subspecies [, and, as such, not subject to regulation by the Code [Arts. 1 and 45d).].

It is, of course, a fact that a large number of zoologists have no use for infrasubspecific names, but it is also a fact that a perhaps smaller or less articulate number, mostly lepidopterists, do have use for such names, a large number of which exist in the literature. The necessity of such names definitely exists. There is no reason why these two groups of zoologists cannot live together in complete harmony each having what it wants. This would be accomplished if species and subspecies had their own laws and infrasubspecific forms had theirs, neither conflicting in any way with the other set of laws.

As one who has never proposed a name for an infrasubspecific form I am perhaps in as good a position as anyone to propose the foregoing amendments to the Code, as a solution that should be satisfactory to all concerned. Such is the purpose of the foregoing proposals.

CASE No. 16

A NAME FIRST PUBLISHED AS A SYNONYM IS NOT THEREBY MADE AVAILABLE. Article 11(d). (Z.N.(S.) 1570)

By Cyril F. Dos Passos (*Washington Corners, Mendham, N.J.*)

If publication in a synonymy is deemed to be retroactive, as seems to be generally understood, what becomes of such a name that before 1958 had been removed from the synonymy and used for a taxon ? Must it now be replaced ? If so, it would seem that a sentence should be added to this provision to the effect that it is not applicable to such a name for an animal.

Therefore, it is proposed that Article 11(d) be amended to read as follows (new matter in italics) :

(d) Publication in synonymy.—A name first published as a synonym is not thereby made available *unless prior to* 1958 *it has been recognized, removed from the synonymy and used as the name of a taxon.*

CASE No. 17

NEOTYPES—Article 75. (Z.N.(S.) 1571)

Document 17/1

By Cyril F. Dos Passos (*Washington Corners, Mendham, N.J.*)

The recognition of neotypes by Article 75 of the Code is a step in the right direction following as it does Article 20B of the Bradley draft of the Code (1957–1958, *Bull. zool. Nomencl.* **4** : 145–151), but some of the provisions respecting their designation are so strict and unnecessary that this article will likely be ignored by most zoologists or they will be discouraged from designating neotypes. With a view to rendering this article more palatable to zoologists it is proposed that it be amended to read as follows (matter in brackets to be omitted—matter italicized to be added) :

> **Article 75, Neotypes.**—Subject to the following limitations and conditions, a zoologist may designate another specimen to serve as the " neotype " of a species if, through loss or destruction no holotype, lectotype, or syntype exists.
>
> (a) **Cases admitted.**—A neotype is to be designated only in [connection with revisory work, and then only in exceptional circumstances] *a scientific paper* when a neotype is necessary in the interests of stability of nomenclature.
>
> (i) The words [" exceptional circumstances "] " *in a scientific paper* " refer to those cases in which a neotype is essential for solving a [complex] zoological problem, such as the confused or doubtful identities of closely similar species for one or more of which no holotype, lectotype or syntype exists.
>
> (b) **Cases excluded.**—A neotype is not to be designated for its own sake, or as a matter of curatorial routine [or for a species of which the name is not in general use either as a valid name or as a synonym].
>
> (c) **Qualifying conditions.**—A neotype is validly designated only when it is published with the following particulars :
>
> (1) a statement of the characters that the author regards as differentiating the taxon for which the neotype is designated, or a bibliographic reference to such a statement ;
>
> (2) data and description sufficient to ensure recognition of the specimen designated ;
>
> (3) the author's reasons for believing all of the original type-material to be lost or destroyed, and the steps that have been taken to trace it ;
>
> (4) evidence that the neotype is consistent with what is known of the original type-material, from its description and from other sources : however, if a nominal species is based on a sex or immature stage that lacks good diagnostic characters, the neotype may differ in that respect from the original material ;

(5) evidence that the neotype came as nearly as practicable from the original type-locality, and where relevant, from the same geological horizon or host-species as the original type-material ;

(6) a statement that the neotype is, or immediately upon publication has become, the property of a recognized scientific or educational institution, cited by name, that maintains a research collection, with proper facilities for preserving types, and that makes them accessible for study.

(d) **Priority.**—The first neotype-designation published for a given nominal species in accordance with the provisions of this Article is valid, and any subsequent designation has no validity unless the first neotype is lost or destroyed.

[**Recommendation 75A. Consultation with specialists.**—Before designating a neotype, a zoologist should satisfy himself that his proposed designation does not arouse objections from other specialists in the group in question.]

(e) **Status of previously designated neotypes.**—A neotype-designation published before 1961 takes effect from the time when it fulfils all the provisions of this Article.

Recommendation 75B. Validation.—A zoologist who published an invalid neotype-designation before 1961 should be given opportunity to validate it before another zoologist designates a neotype for the same nominal taxon.

Recommendation 75C. Preference for earlier neotypes.—If an invalid neotype-designation was published before 1961, the specimen then designated should be given preference when a neotype for the same nominal taxon is validly designated.

(f) **Status of rediscovered type-material.**—If, after the designation of a neotype, original type-material is found to exist, the case is to be referred to the Commission.

The foregoing provisions place sufficient restrictions around the possible abuses that could arise in the naming of neotypes and they are fair and workable. They eliminate the provisions that a neotype may be designated only in connection " with revisionary work "—an undefined term—for which " scientific paper " is substituted, and also the words " and then only in exceptional circumstances " and in solving a " complex " zoological problem—the later being both subjective matters. They also omit all references to not arousing objections from other specialists—a meaningless provision giving any specialist a veto power and always involving a waste of time in extensive correspondence. It is therefore suggested that Article 75 be revised along the foregoing lines.

CASE No. 18

REQUEST FOR AMENDMENT OF THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE TO PROVIDE A SINGLE GENDER FOR ALL GENERIC NAMES ENDING IN -*OPS*. (Z.N.(S.) 1572)

Document 18/1

By W. I. Follett and Lillian J. Dempster (*California Academy of Sciences, San Francisco, U.S.A.*)

The International Code of Zoological Nomenclature (Article 30) provides in effect that if the ending *-ops*, of a generic name, is derived from the Greek omicron-psi (meaning " voice ", or rarely " face "), the name is to be treated as feminine ; if from omega-psi (meaning " face " or " eye ") the name is to be treated as masculine, unless its author indicated otherwise, or unless, in the absence of such an indication, zoologists have generally treated the name as feminine.

Many zoologists lack a sufficient understanding of ancient Greek to interpret these requirements with confidence.

(The Code (Article 30(a), Examples) provides that names ending in *-opsis* are to be regarded as feminine.)

We propose that the Code be amended to provide that a generic name that ends in *-ops* is to be regarded as feminine.

Document 18/2

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The rule concerning the gender of generic names ending in *-ops* as it now stands is far too complicated. It would be more sensible to indicate a single gender for all generic names ending in *-ops*. This is the more justified since hardly any name (I myself know of not a single one) is derived from the word ὄψ for " voice ", practically all being derived from ὤψ for "eye". The rule as it now stands leaves the door wide open for the danger of differences in the interpretation of the meaning of an author proposing a new name ending in *-ops*. It seems most logical to me that a rule be put in the Code stating that all generic names ending in *-ops* are to be considered masculine.

Bull. zool. Nomencl., Vol. 20, Part 1. March, 1963.

CASE No. 19

CONTINUITY—ARTICLE 39a. (Z.N.(S.) 1573)

Document 19/1

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

I am very much afraid that the danger hidden in Article 39a has not been recognized by the London Congress and neither by the Commission nor the Editorial Committee. The chaos that might be caused by the principle of back-dating family—and especially generic—names should not be underestimated. Therefore I earnestly advise the Commission to consider the entire deletion of Article 39a with the subparagraphs (i), (ii), and the Example. The article as it now stands means that a generic nomen novum proposed for a junior homonym gets priority over available older replacement names as long as those replacement names have not originally been proposed as such. Example:

If the nominal genus *A-us* 1800 is found to be invalid as a junior homonym and has as its subjective synonyms the generic name *B-us* 1825, *C-us* 1850, and *D-us* 1900, a nomen novum *E-us* proposed in 1960 to replace *A-us* 1800 has priority over any of the names *B-us*, *C-us*, and *D-us*, even if *B-us* was currently used as a replacement name for *A-us*. This so thoroughly upsets current practice that an enormous nomenclatorial chaos will be the result. Therefore I strongly advise the deletion of the entire section on back-dating of names.

Document 19/2

By the Committee on Nomenclature of the Entomological Society of America. Chairman, Curtis C. Sabrosky.

The Committee understands that the deletion of Article 39a, including Subsections and Example, has been proposed by Dr. L. B. Holthuis, and wishes to record support of that proposal. The deletion, if agreed to, will also involve the cross-references, Article 60a(i).

CASE No. 20

CITATION OF AN OBJECTIVE SYNONYM OF ONE OF THE ORIGINALLY INCLUDED SPECIES AS TYPE OF A GENUS. (Z.N.(S.) 1574)

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

On the advice of the Editorial Committee, the Commission has deleted from the Code a provision of rather long standing which had also been adopted by the London Congress. This provision which in the provisional draft (and the galley proof) of the Code had the article number 69a(v) ran as follows :

" If a subsequent designation involves a nominal species that was not originally included, but that being based on the same type-specimen, is an objective synonym of one of the originally included species, the designation is construed to be a valid type-designation of the latter."

In my opinion Art. 69a(iv) was quite sensible. Many type-designations mention the type-species under its current name, which often is either a combination different from that used in the original description of the genus, a substitute name, or an objective synonym of that name. The use of such an objective synonym instead of the name actually cited in the original publication is even mandatory under Art. 67e. The deletion of Art. 69a(iv) therefore is contrary to Art. 67e. Personally I cannot see any danger in considering a type-designation valid if instead of the name of the type-species as mentioned in the original description of the genus, one of its objective (and only objective) synonyms is mentioned.

CASE No. 21

PROPOSAL FOR CLARIFICATION OF ARTICLE 33. (Z.N.(S.) 1575)

By J. R. Vockeroth (*Entomology Research Institute Department of Agriculture, Ottawa, Canada*)

Under Article 33 a change in spelling which is not a justified emendation is to be considered either an unjustified emendation or an incorrect subsequent spelling. If the change is " demonstrably intentional " it is to be considered an unjustified emendation ; if not, an incorrect subsequent spelling. In my opinion the phrase " demonstrably intentional " is not sufficiently clear and unequivocal to allow a definite decision to be made in all cases. Since unjustified emendations have separate status and are available as replacement names, and incorrect subsequent spellings have no separate status, failure to distinguish the two types of spelling change could lead to confusion and instability in the following manner :

If *X-us* Smith, 1800 is spelled *X-a* by Brown in 1850, and *X-us* is found to be a junior homonym, with *Y-us* Jones, 1900 as a synonym, an author who considers *X-a* Brown to be an unjustified emendation would accept it as the valid name of the genus, whereas an author who considered it an incorrect subsequent spelling would accept *Y-us* as the valid name.

I therefore propose that the word " demonstrably " be deleted from Article 33(a) and that a new subsection, 33(a)(iii), be added to Article 33(a) as follows :

A change in a correct original spelling (in the sense of Article 32) is to be considered intentional only if the author explicitly states he is changing the spelling or if he cites the original spelling as a synonym and consistently uses an altered spelling ; it is not otherwise to be considered intentional even though the original spelling contains an incorrect transliteration, an improper latinization, or an inappropriate connecting vowel.

CASE No. 22

MISCELLANEOUS COMMENTS (Z.N.(S.) 1576)

Document 22/1

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

1. I agree with the idea behind Article 15, but not with the wording. There are more terms than " variety " and " form " to denote infra-subspecific forms. The wording of Article 15 as it now stands gives the impression that names published after 1960 preceded by other infra-subspecific terms than " variety " and " form " (e.g., natio), are available. Therefore might I suggest that the wording of Art. 15 be changed as follows :

> " After 1960, a new name proposed conditionally, or one denoted by the terms " variety " or " form " (or any other term indicating a taxon of infra-subspecific rank) [Art. 45e] is not available ".

This addition to Art. 15 does not make any addition to Art. 17(9) or 45(e) necessary, as names proposed before 1961 with terms like " natio " ," aberratio " or any infra-subspecific term other than " variety " or " form " are clearly infra-subspecific names.

2. In the example to Art. 23e(iii) a small addition should be made. In the text as it now stands, namely, no provision is made for the possibility that *A-us* 1850 has a junior synonym (say *E-us* 1855), which is older than the oldest subgeneric name (here *D-us* 1860). If such a synonym does exist the example would be faulty as then the correct name for the genus would be *E-us* and not *D-us*. I would suggest therefore that the last sentence of the example be replaced by the following :

> " If the name *A-us* is found to be a homonym, and if it has no available junior synonyms which are older than the name *D-us*, it is replaced as the name of the genus by *D-us* 1860, the next oldest valid name ".

Document 22/2

By C. Dos Passos (*Washington Corners, Mendham, N.J., U.S.A.*).

Form of citation—Article 51b(i). This rule alters the long established practice by providing that " the name of a subsequent user of a scientific name, if cited, is to be separated from it in some distinctive manner, *other than by a comma* " (italics mine).

It is understood that this change was made because (1) some zoologists habitually use a comma between specific names and original authors and (2) it was felt that a more distinctive mark of punctuation was better, easier to recognize and harder to miss in proof reading.

It would hardly seem that such reasons need answering but the answer to (1) is let those zoologists mend their ways and learn to omit their improper commas and to (2) that a comma is at least more distinctive than a period so let proof readers buy eye-glasses if they cannot see well enough to distinguish between the various punctuation marks.

Do not let us have rules that fawn upon the idiosyncrasies of a few zoologists and the poor eyesight of some proof readers ! Commas are required elsewhere in the Code (Article 22), and are a well recognized form of punctuation. It is therefore proposed that Article 51b(i) be amended so as to read as follows :

> " The name of a subsequent user of a scientific name, if cited, is to be separated from it by a comma ".

Date in a changed combination—Article 22, Recommendation 22B. This recommendation should be repealed because it confuses two different things. First, the changed combination which requires an author's name to be placed in parentheses (Art. 51a). Secondly, the methods prescribed for citing dates of publication (Chapter V).

Sometimes a date is placed in parentheses and sometimes it is not, depending upon the publication in which the name is found (Recommendation 22A(2)). Placing a date in parentheses when the combination is changed can therefore affect and make improper the date citation which in that particular case should be outside the parentheses (Recommendation 22a(1)).

It is therefore proposed that Recommendation 22B be repealed.

Document 22/3

By E. Raymond Hall, (*University of Kansas, Lawrence, Kansas, U.S.A.*)

It is hereby proposed that each of the six (6) changes, as listed below, be made in the Code at the XVI International Congress.

(1) Delete (b) of Article 23.

(2) " Tighten up " Articles 23(d)(ii) and 41 by appropriate wording so as to provide automatic procedure for applying names.

(3) Add to the end of the first sentence of Article 24a(i) the four words " as the first writer ".

(4) Delete all of (c) of Article 42.

(5) Delete all of Article 75.

(6) Delete the part of (5) of Article 77 that relates to the " Official Lists of Accepted, and the Official Indexes of Rejected Names ".

Reasons for recommending the changes are stated in a recently published article on the Code (*Journal of Mammalogy* 43(2) : 284–286, May 29, 1962).

Document 22/4

By J. Chester Bradley (*President, International Commission on Zoological Nomenclature*)

Growing out of my comments on the case of *Tettigoniella* (see Opinion 647), I wish to propose the following two amendments to the Code :

(1) to add to Article 61 of the Code, a second paragraph to read :

> " Types are to be recognized only for nominal taxa the names of which are available ".

(2) In Article 67(i), line 2 insert " available " before " name ", and add here or at another appropriate place :

> " If a zoologist proposes a new generic name expressly as a replacement for a prior name, but the latter name is not available under the provisions of Art. 11 et seq., then that zoologist has established a new nominal taxon if he has provided the data necessary to make the name available ".

(3) These provisions are necessary to clarify Article 16a(iii) where it is specified that a new name becomes an " indication when substituted for a previously established name ". (Established, according to the Glossary, means made available in the meaning of the Code.) The provisions are equally necessary to clarify Article 13a(iii) where the phrase " available name " is employed.

CASE No. 3

PROPOSAL FOR DELETION OF ARTICLE 23(b) FROM THE INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE

Document 3/5

By J. R. Vockeroth (*Entomology Research Institute Department of Agriculture, Ottawa, Canada*)

I wish to propose the deletion of Article 23(b) from the Code for the following reasons :

(1) Well-known and important names are already afforded protection under paragraph 4 of the Preamble to the Code and under Article 79. Should an author supplant such a name anyone may apply to the Commission to have the better-known name preserved. Article 23(b) is unnecessary since its object can be achieved under the terms of the Preamble and Article 79.

(2) By far the larger number of zoological names are neither well-known nor of importance in applied zoology ; to refer such names to the Commission to be placed on the appropriate Official Index or Official List will be an unwarranted demand on the time and energies of the Commission. Should an author feel a junior synonym is of sufficient importance to merit preservation he would submit the case under the terms of the Preamble ; if it is not of sufficient importance it should be relegated to synonymy without involving the Commission. The setting-aside of priority, the basic principle of zoological nomenclature, on the basis of a technicality (non-usage of a name for 50 years) rather than on the basis of the importance of the name concerned, will, I feel, bring the Code and the Commission into disrepute.

(3) In the Insecta, and in many other invertebrates, many groups have not been revised for 50 years or more. Names which may have been based on adequate original descriptions, used a number of times, and included in the latest revision of the group to which the taxa concerned belong, may not have

been used during the past 50 years simply because no one has studied the group during that period. To treat such names as *nomina oblita* is absurd.

(4) " Primary zoological literature " will be very difficult to define unambiguously. I assume that recording serials and catalogues are meant to be excluded (these were specifically mentioned in several published preliminary drafts of Article 23(b)). Catalogues, however, vary greatly—they may be uncritical compilations, or they may be critical works with new synonymy, new combinations, new biological data. Different parts of the same work (e.g., Kloet and Hincks, Check List of British Insects) or of a series (e.g., Genera Insectorum), when contributed by different authors, may vary in this regard. I think a definition which will make unnecessary frequent application to the Commission for a decision will be difficult to frame.

(5) The Commission, by placing supposed senior synonyms on the Official Index of Rejected Names, may make unavailable names which future study may indicate are not synonyms. If no other name is available for such a taxon the Commission will have to remove the name in question from the Index, or a new name will have to be proposed. This could, of course, happen with names submitted under the terms of the Preamble ; however, Article 23(b) is likely to increase greatly the number of cases submitted to the Commission and thus to increase proportionately the possibility of such a situation arising.

Document 3/6

By the Committee on Nomenclature of the Entomological Society of America.
Chairman, Curtis W. Sabrosky

The following proposal for amendment of the International Code of Zoological Nomenclature is made herewith on behalf of the Committee. Time did not permit review of the text by the members of the Committee, and the responsibility for this rests with the Chairman, who drafted it after receiving comments from the Committee.

Article 23b (Limitation on the Law of Priority)

The Committee proposes the deletion of Article 23b and its subsections, together with the cross-reference, Article 23a(i).

The Committee is opposed to 23b on general principles. Furthermore, it believes that (1) the provision as it stands is ambiguous and unworkable, (2) that a satisfactory, unambiguous, and objective wording would be impossible to achieve, (3) that any such provision would overload the Commission with cases of trifling importance, (4) that the 50-year period is pitifully short, especially in the broad field of entomology with its hundreds of names, vast literature, and relative infrequency of revisions in many groups, (5) that a Limitation on the Law of Priority is unjustified for the great majority of cases, and (6) that Article 79 continues to grant to the Commission adequate plenary powers to deal with names or situations that are sufficiently important or confused as to justify Suspension of the Rules.

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Dr. K. H. L. Key (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15 October 1954)

Dr. Alden H. Miller (*Museum of Vertebrate Zoology, University of California, Berkeley, California, U.S.A.*) (29 October 1954)

Doc. Dr. Ferdinand Prantl (*Národni Museum v Praze, Prague, Czechoslovakia*) (30 October 1954)

Professor Dr. Wilhelm Kühnelt (*Zoologisches Institut der Universität, Vienna, Austria*) (6 November 1954)

Professor Ernst Mayr (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4 December 1954)

Professor Enrico Tortonese (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16 December 1954)

Dr. Per. Brinck (*Lunds Universitets, Zoologiska Institution, Lund, Sweden*) (19 May 1958)

Dr. Max Poll (*Musée Royal de l'Afrique Centrale, Tervuren, Belgium*) (12 July 1958)

Professor H. Boschma (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (23 July 1958)

Mr. Francis Hemming (*London, England*) (23 July 1958)

Dr. Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (23 July 1958)

Professor Pierre Bonnet (*Université de Toulouse, France*) (23 July 1958)

Mr. Norman Denbigh Riley (*British Museum (Natural History), London*) (23 July 1958)

Professor Dr. Tadeusz Jaczewski (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (23 July 1958)

Professor Dr. Robert Mertens (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (23 July 1958)

Professor Dr. Erich Martin Hering (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (23 July 1958)

Dr. D. V. Obruchev (*Palaeontological Institute, Academy of Sciences, Moscow B-71, U.S.S.R.*) (5 November 1958)

Professor Tohru Uchida (*Department of Zoology, Hokkaido University, Japan*) (24 March 1959)

Professor Dr. Rafael Alvarado (*Museo Nacional de Ciencias Naturales, Madrid, Spain*) (31 May 1960)

Dr. Gwilym Owen Evans (*British Museum (Natural History), London*) (31 May 1960)

Dr. E. G. Munroe (*Canada Department of Agriculture, Division of Entomology, Ottawa, Canada*) (9 June 1961)

Dr. N. S. Borchsenius (*Institute of Zoology, Academy of Sciences, Leningrad B-164, U.S.S.R.*) (28 September 1961)

Dr. W. E. China (*British Museum (Natural History), London*) (21 May 1962) (*Acting Secretary*)

Prof. E. Binder (*Museum d'Histoire Naturelle, Geneva, Switzerland*) (21 May 1962)

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 20, Part 2 (pp. 81–160) 11*th April*, 1963

Acting Secretary's Note

The tremendous amount of work involved in organizing and dealing with the nomenclatural results of the Paris, Copenhagen and London Congresses, and in the bringing into existence of the new International Code of Zoological Nomenclature, resulted in a slowing down of routine work of the Secretariat during the post-war years. In consequence, a large back-log of unpublished cases has accumulated. By 31 October 1961, of the 1,503 Applications made to the Commission since its foundation in 1895 no less than 1,124 had been dealt with in one way or another leaving 379 refractory-cases which could not be completed for various reasons. This was in spite of the fact that 126 cases were published during the two years October 1959 to October, 1961.

At first sight this rather large back-log appeared to be an alarming feature of the Secretary's Office and some attempt was made to reduce it. A closer inspection revealed the fact that many of these cases were virtually dead and that the files should be closed. They had been so long in being dealt with that both the taxonomic and nomenclatural positions concerned had changed completely. Often the nomenclature involved had been stabilized by a current usage based on a major catalogue or by an important and generally accepted work which had been published during the long interval since the original applications were received. Attempts to summarize and publish such old cases in the *Bulletin* have not been entirely successful and have sometimes resulted in an entirely out-of-date presentation. Many cases cannot be dealt with by the Commission for lack of details such as references to type-species designations, oldest family-group names, etc. It is obviously not possible for the small staff of the Secretariat, even though it is housed in the British Museum (Nat. Hist.) and surrounded by specialists, to determine these details in all groups of animals. Reference to specialists is essential but time consuming.

It has therefore been decided to close all files in the back-log and to request any specialists who submitted applications before October 1959, and who are still interested in them, to re-submit their applications revised according to the taxonomic and nomenclatural changes which have taken place since the original submission.

W. E. CHINA.
Acting Secretary.

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Suppression of *Amyda* Fitzinger, 1843 (Reptilia). Z.N.(S.) 229
(2) Suppression of certain Aphid names of Rafinesque (Insecta, Hemiptera). Z.N.(S.) 327
(3) Designation of a type-species for *Mymar* Curtis, 1829 (Insecta, Hymenoptera). Z.N.(S.) 479
(4) Suppression of *Yerbua* Forster, 1778 (Mammalia). Z.N.(S.) 653
(5) Validation of *Psylla* Geoffroy, 1762, and suppression of *Chermes* Linnaeus, 1758 (Insecta, Hemiptera). (Z.N.(S.) 1515
(6) Designation of a type-species for *Dactylopusia* Norman, 1903 (Crustacea, Copepoda). Z.N.(S.) 1517
(7) Designation of a type-species for *Bomolochus* Von Nordmann, 1832 (Crustacea, Copepoda). Z.N.(S.) 1518
(8) Validation of, and designation of a type-species for, *Candacia* Dana, 1846 (Crustacea, Copepoda). Z.N.(S.) 1520

c/o British Museum (Natural History)
Cromwell Road,
London, S.W.7, England.
21 *February* 1963

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

COMMENTS ON THE PROPOSAL TO VALIDATE THE NAME *LYSTROPHIS* COPE, 1885. Z.N.(S.) 1484

(see volume 19, pages 164–169)

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

Certainly the preservation of *Lystrophis* in the commonly accepted modern sense is highly desirable and strongly preferable to the change that would be required in this case by strict application of the Law of Priority. Therefore approval is recommended of the proposals to (a) suppress the generic name *Rhinostoma* Fitzinger, 1826, and the specific name *nasua* Wagler, 1830 ; to (b) place each of those names on the appropriate Official Index ; and to (c) place three generic names (*Lystrophis, Phimophis, Simophis*) and five specific names (*dorbignyi, guianensis, guerini, nigrum, rhinostoma*) on the appropriate Official Lists. This involves an unfortunate shift of the name *guerini* from one species to another, but because of the intertwined history of species and names, their lack of prominence even in systematic literature, and the clear fixation of the new terminology in the pending monographs by Dr. Bailey, the recommended shift appears to me the best possible solution.

I am not, however, aware of any necessity for inclusion on the Official Indexes of Fitzinger's names *Rhinosiphon, Rhinaspis,* or *proboscidea,* all of which are *nomina nuda* and therefore non-existent in nomenclature. Surely *nomina nuda* as such should not and in reality perhaps cannot be entered on any Official List or Index, simply because they are agreed, I understand, not to exist so far as zoological nomenclature is concerned. I do not, therefore, recommend the proposal to place the names on the Official Indexes.

The name *Rhinosimus* of Duméril, Bibron and Duméril likewise surely does not require official attention and inclusion on the Official Index because it is already dead, stillborn, and by all Codes unavailable for taxonomic usage (save by petition), because of absolute junior homonymy. It is surely unwise to clutter the record with compounded rejections when the original is so universally regarded as final.

By A. do Amaral (*Sao Paulo, Brazil*)

I am writing to support the proposal submitted by Joseph B. Bailey to validate the generic name *Lystrophis* Cope, 1885, in the light of basic arguments as briefly taken from the revisionary study he has just finished of some South American serpents with protuberant snout.

Much as I should like to refrain, as a Commissioner, from expressing an opinion at the present stage of the question, I feel, as a specialist on Neotropic reptiles, I am bound to disclose my own view, inasmuch as I made an attempt, twice in the past, to get over the great confusion of names involved in that heterogenous group of snakes (in *Rev. Mus. Paulista*, 1926, XIV: 12, 26, 29 et *Mem. Inst. Butantan*, 1929, IV : 36, 39–41) ; and twice had I to give it up both for scarcity of comparative material and for lack of time, called as I was by urgent executive duties. Based, however, on the experience I have gained in the meantime and on the data brought out by J. B. Bailey, I deem his proposal really not to be apt to cause too profound a disturbance to our present nomenclature and to be likely otherwise to facilitate the understanding of the past literature on the Neotropical ophidians, both aglyphodont and opisthioglyphodont, provided with a horizontal sharply edged rostral shield.

INTERNATIONAL TRUST F

Incorporated under the Compan

Balance Shee

1960 £	1960 £		£	s.	d.	£	s.
		Revenue Reserves (as per separate accounts)—					
	2,731	"Official List" Suspense Account	2,858	0	9		
11,624	*8,893*	Income and Expenditure Account	10,365	14	3	13,223	15
1,200		*Special Donation unappropriated*				1,200	0
		Current Liabilities—					
1,183		Sundry Creditors				1,254	16
£14,007						£15,678	11

REPORT

We have obtained the information and explanations which we considered necessary, and in our opinion

(1) The above balance sheet and annexed income and expenditure account give a true and fair view ended on that date.

(2) Proper books have been kept and the accounts are in agreement therewith and give, in the prescrib

Finsbury Circus House,
Blomfield Street,
London, E.C.2.
16th May, 1962.

LOGICAL NOMENCLATURE

1929 (Limited by Guarantee)

December, 1961

1960						
£	£			£ s. d.	£ s. d.	£ s. d.
			Fixed Assets—			
			Office Equipment—			
	627		Book Value at 1st July, 1948 and Additions since at cost		837 18 7	
	366		*Less* Depreciation and amount written off		412 18 7	
261						425 0 0
			Current Assets—			
		£900	Amounts due for Publications, at valuation	1,570 0 0		
		14	Sundry Amounts prepaid	– – –		
		59	Income Tax Recoverable	31 19 4		
	973				1,601 19 4	
			Investments at cost—			
		2,078	£2,500 2½% Savings Bonds 1964/67 ...	2,078 10 6		
		2,249	£2,500 3% Savings Bonds 1955/65 ... (Market Value at date £4,387) (Ditto 1960 £4,337)	2,248 16 9		
		4,327		4,327 7 3		
		3,000	County Borough of Preston 5½% Mortgage	3,000 0 0		
	7,327				7,327 7 3	
	5,446		Balances at Bank and Cash in Hand		6,324 5 3	
746						15,253 11 10
			(NOTE—The Stock of Publications has not been valued.)			
007						£15,678 11 10

FRANCIS J. GRIFFIN } Members of the Committee
N. D. RILEY } of Management

AUDITORS

tate of the Trust's affairs at 31st December, 1961 and of the excess of income over expenditure for the year

ner, the information required by the Companies Act, 1948.

W. B. KEEN & CO.,
Chartered Accountants.

Income and Expenditure Account f

1960 £	£	EXPENDITURE	£	s.	d.	£	s.
		Administration Expenses—					
	2,329	Salaries and National Insurance	2,713	2	6		
	1,021	Office Expenses	585	16	11		
	53	Audit Fee	52	10	0		
	3,403		3,351	9	5		
	15	*Less :* Proportion allocated to " Official List "	50	0	0		
3,388						3,301	9
29		Depreciation of Office Equipment				47	0
		Printing Publications—					
	—	International Code	1,209	15	10		
	1,179	Bulletin of Zoological Nomenclature	1,671	7	10		
1,179						2,881	3
4,596						6,229	13
810		Balance, being Excess of Income over Expenditure for the year, carried down				1,472	10
£5,406						£7,702	4
8,893		Balance carried forward per Balance Sheet				10,365	14
£8,893						£10,365	14

" Official List

for the year end

1960 £		£	s.
15	Proportion of Administration Expenses	50	0
2,731	Balance carried forward per Balance Sheet	2,858	0
£2,746		£2,908	0

the year ended 31st December, 1961

1960 £	£	INCOME	£ s. d.	£ s. d.
		Sales of Publications—		
	—	International Code	784 2 9	
	879	Opinions and Declarations	580 17 8	
	3,698	Bulletin of Zoological Nomenclature	5,461 15 6	
	20	Copenhagen Decisions on Zoological Nomenclature	9 10 10	
4,597				6,836 6 9
18		Donations		13 16 11
303		Interest received on Investments (gross)		302 10 0
131		Interest on Bank Deposit		192 7 6
357		Grant from U.N.E.S.C.O. per International Union of Biological Sciences		357 2 10
£5,406				£7,702 4 0
8,083		Balance brought forward from 1960		8,893 3 4
810		Balance brought down		1,472 10 11
£8,893				£10,365 14 3

Suspense Account

31st December, 1961

1960 £		£ s. d.
2,262	Balance brought forward from 1960	2,730 19 3
484	Sales of Publications	177 1 6
£2,746		£2,908 0 9

COMMENTS AND COUNTER PROPOSAL ON THE TYPE-SPECIES OF *AMMODISCUS* REUSS, 1862 (FORAMINIFERA). Z.N.(S.) 1087

(see volume 19, pages 27–34, pl. 1–2)

By Alfred R. Loeblich, Jr. (*California Research Corporation, La Habra, California*) and Helen Tappan (*University of California, Los Angeles, California*)

The proposal by Macfadyen, 1962 (*Bull. zool. Nomencl.* 19(1) : 27–34, pls. 1, 2) was stated to have as its purpose the stabilization of interpretation of the nominal genus *Ammodiscus* Reuss, 1862, and to that effect the species *Spirillina arenacea* Williamson, 1858, was recommended to be designated as type-species, prior designations being set aside for this purpose. Unfortunately, this proposal ignores the earlier definite type citation which does stabilize the generic interpretation, in accordance with the International Rules of Nomenclature and thus not requiring petition to the commission (Loeblich and Tappan, 1954, *Washington Acad. Sci., Jour.* **44**(11) : 306 ; Gerke, 1960, *Sbornik Statei po Paleontol. i Biostratig.*, Nauchno-Issledov. Inst. Geol. Arktiki, Minist. Geol. i Okhrany Nedr SSSR, Vyp. 19, p. 7 ; Loeblich and Tappan 1961, *Micropaleontology* **7**(2) : 189). The proposal to set aside earlier type designations in order to substitute as type-species one which is not available under application of the rules is therefore unnecessary.

2. In view of the redefinition of the species *Spirillina arenacea* included in the above-mentioned proposal, this species does not even agree with the generic diagnosis, but seems closer to the genus *Glomospirella* Plummer, 1945. Hence, its designation as type-species would not stabilize the interpretation of *Ammodiscus*, but would require its redefinition, suppression of the later genus *Glomospirella*, and probably require proposal of another taxon for species currently referred to *Ammodiscus*.

3. The proposed designation of a new type-species under the plenary powers is therefore here opposed, as follows : (a) The original definition of *Ammodiscus* included no citation of species, hence (Art. 69a (ii)) any subsequent author may select the type and such designation is not subject to change. The type selected must also be among those first to be included in the genus (Art. 69a). The first mention of any species in connection with the foraminiferal genus *Ammodiscus* was by Bornemann, 1874 (*Deutsche Geol. Gesell., Zeitschr.* **26** : 702–749). The above-mentioned articles (Loeblich and Tappan, 1954, 1961 ; Gerke, 1960) regard *Ammodiscus infimus* Bornemann, 1874 (non *Orbis infimus* Strickland, 1846) = *Involutina silicea* Terquem, 1862 as type-species of *Ammodiscus*. This species was among those included in the first publication to cite species. *Spirillina arenacea* Williamson (proposed by Macfadyen, 1962, as type-species) was not therein included. (b) Macfadyen regarded *S. arenacea* as available for type designation because of the citation of *generic* synonymy (*Cornuspira* Will. z. Thl., *Trochammina* Park. et Jon. z. Thl.) by Reuss, although according to the revised International Code of Zoological Nomenclature, 1961, Art. 69a (ii) (1), " Mere reference to a publication containing the names of species does not by itself constitute the inclusion of species in a nominal genus ", and as no species were actually mentioned in the original publication, the type must be selected from " one of those first subsequently referred to the genus ". Art. 69a. The first subsequent publication to cite included species was that of Bornemann, 1874, and *Spirillina arenacea* Williamson was not included in this publication, as mentioned above. (c) As redefined by Barnard in the above petition by Macfadyen, 1962, *Spirillina arenacea* does not have the generic characters originally described and commonly stated for *Ammodiscus* (i.e., planispiral development). Each of the ten specimens of Williamson's material was stated to have the early coiling abruptly reversed in direction, and the development is thus streptospiral or glomospiral in nature. Such early glomospirine coiling followed by planispiral coiling is characteristic of the genus *Glomospirella* Plummer, 1945. Recognition of *S. arenacea* as type of

Ammodiscus, would make the latter a senior synonym of *Glomospirella*, and leave planispiral forms previously and correctly referred to *Ammodiscus* for almost a century without an applicable generic taxon. (d) Independent and almost simultaneous studies by Gerke, 1960, and Loeblich and Tappan, 1961 (*op. cit.*) reached identical conclusions as to the valid type-species of *Ammodiscus*, designated in agreement with the International Rules, and in accord with the regulations as to subsequent designation of type-species and differing from that suggested by Macfadyen. The latter article of Loeblich and Tappan was mentioned only in a footnote to the presently discussed petition, but the discussion was ignored and the conclusions as to type-species disregarded. The article by Gerke on the systematics and nomenclature of *Ammodiscus* and *Involutina* was apparently completely overlooked by Macfadyen. Gerke, 1960 (p. 7) recognized *Ammodiscus* Reuss, 1862 as emended by Bornemann, 1874, with type-species cited as follows, " Tipichnyĭ Vid : *Involutina silicea* Terquem, 1862, Mém. Acad. Imp. Metz., T. 42 (ser. 2, T. 9), str. 450, tabl. 6, fig. IIa, b = *Ammodiscus infimus* Bornemann, 1874 (non *Orbis infimus* Strickland, 1846). Zeitsch. deutsch. geol. Gesellsch., t. 26, str. 725, tabl. 18, fig. 4–7 ; tabl. 19, fig. 8=*Involutina silicea* Loeblich and Tappan, 1954, *Journ. Wash. Acad. Sci.*, t. 44, no. 10, str. 310, fig. 2a, 2b ". Gerke's fully documented discussion of this type designation occupied five pages. He also (Gerke, 1960, p. 12) recognized *Involutina* Terquem, 1862, emend. Bornemann, 1874, with type-species cited as follows : " Tipichnyĭ Vid : *Nummulites liassicus* Jones, 1853 in Brodie. Ann. and Magaz. of Nat. Hist., ser. 2, t. 12, str. 272 = *Involutina jonesi* Terquem et Piette, 1862 in Terquem. Mem. Acad. Imp. Metz. t. 42 (ser. 2, t. 9), str. 461, tabl. 6, fig. 2a–d = *Involuntina liassica* Brady, 1864. Geol. Magaz., t. 1, no. 5, str. 193, riz. 1, 2, tabl. 9, fig. 1–6." Documented discussion of this citation by Gerke occupied five pages. The article by Loeblich and Tappan, 1961 (*Micropaleontology* 7(2) : 189–192) fully discussed the historical and legal aspects of the generic status and type-species of both *Involutina* and *Ammodiscus*, hence these are not here reviewed in detail. The following quoted paragraph (pp. 191–192) summarizes the conclusions of this publication. " In view of the above discussion and Rules, the type-species of *Ammodiscus* is *Ammodiscus infimus* Bornemann, 1874 (not *Orbis infimus* Strickland, 1846) = *Involutina silicea* Terquem, 1862 ; fixed by subsequent designation by Loeblich and Tappan, 1954, p. 306, emended herein, 1961. This designation is substantiated as follows : (1) Bornemann (1874, p. 711) stated that the group of *Involuntina silicea* was to be referred to *Ammodiscus* and definitely mentioned the removal of this species to *Ammodiscus* (page preference). (2) Bornemann's description of the genus *Ammodiscus* was based on original material of Terquem's *Involutina silicea*, and not on material of any other previously described species. (3) The only other species placed by Bornemann in *Ammodiscus* is *Involutina aspera* Terquem, 1863. The description of this species was quoted from Terquem, and Bornemann only provisionally recognized it, stating (as was noted by Wicher, 1944, pp. 349–350) that possibly it might also be a synonym of *A. infimus* (as was understood by Bornemann, not that of Strickland). Wicher also regarded *I. aspera* as synonymous with *Ammodiscus infimus*. Thus according to Bornemann only one species regarded as completely valid was referred to *Ammodiscus* (=virtual monotypy). (4) The citation of *Orbis infimus* Strickland as type-species, by Loeblich and Tappan (1954) was based on the placement of *O. infimus* in *Ammodiscus* by Bornemann and the erroneous assumption that Bornemann had fixed the type by subsequent monotypy. Nevertheless, although not intended as a type fixation itself, but merely as a citation of an earlier type designation, the acceptance of this species as type by Loeblich and Tappan fixed it without possibility of change. (5) The citation of Bornemann's article as fixing the type, although erroneous, thus hinges the type validity upon that publication. Bornemann had erroneously assumed *Orbis infimus* to be a prior synonym of *Involutina silicea* and his description of *Ammodiscus infimus* (Strickland) leaves no doubt that it was based on material erroneously identified with that species, but correctly belonging to *Involutina silicea* Terquem (misidentification of species selected as type). (6) The specific designation of the type species, according to paragraph 212 (cited above) [now Art. 70(b)], should therefore be *Ammodiscus infimus* Bornemann, 1874. As this is a junior synonym of *Involutina silicea* Terquem, 1862, the species may be referred to as *Ammodiscus siliceus* (Terquem)".

4. Inasmuch as the type-species of *Ammodiscus* had been legally designated in the only way possible under adherence to the Rules of Nomenclature, and the status of *Ammodiscus* fixed thereby, it is so indicated by the writers in the section on Foraminiferida in the *Treatise* on *Invertebrate Paleontology*, Part C. Protista 2 (1962, in press), as follows "*Ammodiscus* Reuss, 1862 (p. 365) [* *Ammodiscus infimus* Bornemann, 1874 (p. 725) (*non Orbis infimus* Strickland, 1846) = *Involutina silicea* Terquem, 1862 (p. 450) ; SD Loeblich & Tappan, 1954 (p. 306) ; Gerke, 1960 (p. 7) ; Loeblich & Tappan, 1961 (p. 191)] [=Arammodiscum Rhumbler, 1913 (p. 387) (*nom. van.*) (*obj.*) ; = *Bifurcammina* Ireland, 1939 (p. 201), type : *B. bifurca*] " The asterisk in the above bracket designates the type-species of the genus in this as in previously published volumes of the *Treatise*.

5. In order to promote stability in nomenclature, in agreement with the published Rules of Nomenclature, the International Commission is therefore requested to deny the portion of Z.N.(S.) 1087 regarding type citation for *Ammodiscus*, but instead

(1) to use its plenary powers :
  (a) to recognize the type designation as cited by Gerke, 1960, and by Loeblich and Tappan, 1961, for the nominal genus *Ammodiscus* Reuss, 1862, as *Ammodiscus infimus* Bornemann, 1874 (*non Orbis infimus* Strickland, 1846) = *Involutina silicea* Terquem, 1862 ; fixed by subsequent designation by Loeblich and Tappan, 1954, p. 306, emended Gerke, 1960, p. 7 ; Loeblich and Tappan, 1961, p. 191.
(2) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Ammodiscus* Reuss, 1862 (gender : masculine), type-species, by subsequent designation, Loeblich and Tappan, 1954, 1961 : *Ammodiscus infimus* Bornemann, 1874.
  (b) *Involutina* Terquem, 1862 (gender : feminine), type-species, by subsequent designation of Bornemann, 1874, p. 711 : *Involutina jonesi* Terquem and Piette in Terquem, 1862, p. 461 = *Nummulites* ? *liassicus* Jones in Brodie, 1853, p. 275.
(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *silicea* Terquem, 1862, as published in the binomen *Involutina silicea* [senior synonym of *Ammodiscus infimus*, type-species of *Ammodiscus*];
  (b) *arenacea* Williamson, 1858, as published in the binomen *Spirillina arenacea*, subsequently referred to *Ammodiscus* by Macfadyen, 1962, herein referred to *Glomospirella* Plummer, 1945 ;
  (c) *liassicus* Jones, 1853, as published in the binomen *Nummulites* ? *liassicus* [senior synonym of *Involutina jonesi*, the type-species of *Involutina*] ;
  (d) *infimus* Strickland, 1846, as published in the binomen *Orbis infimus*, and as defined by the lectotype selected for the species by Barnard, 1954, subsequently referred to the genus *Spirillina* Ehrenberg, 1843.
(4) to place the following family-group names on the Official List of Family-Group Names in Zoology :
  (a) AMMODISCIDAE Reuss, 1862 (*nom. correct.* Rhumbler, 1895, p. 83, *pro* family AMMODISCINEA Reuss, 1862, p. 365).

By Hubert C. Skinner (*Professor of Geology, Tulane University, New Orleans, Louisiana, U.S.A.*)

I should like to express my opposition to the petition of Mr. W. A. Macfadyen for the designation of a type-species of *Ammodiscus* Reuss, 1862, utilising the plenary powers of the Commission.

1. The writer sympathises fully with Mr. Macfadyen's views on the desirability of retaining the nominal genus *Ammodiscus* Reuss for arenaceous forms in the sense in which it generally was used from 1880 to 1954.

2. As noted in a footnote to the petition, another paper appeared prior to the petition which clarifies the matter and corrects the type designation consistent with the sense desired by the petitioner. Loeblich and Tappan (1961, *Micropaleontology*, v. 7, pp. 189–192) have admitted error in their previous conclusions (1954, *Journ. Washington Acad. Sci.*, v. 44, pp. 306–310) and have offered a revised interpretation which retains *Ammodiscus* Reuss as a valid genus of arenaceous Foraminiferida. This new interpretation fixes the type of *Ammodiscus* as *Ammodiscus infimus* Bornemann, 1874 (not *Orbis infimus* Strickland, 1846)=*Involutina silicea* Terquem, 1862 ; fixed by subsequent designation by Loeblich and Tappan, 1954, p. 306, emended 1961.

3. The stability of nomenclature would best be served by accepting the revised interpretation of Loeblich and Tappan and rejecting the petition. Numerous papers are published or in press which accept the 1961 view (including two by the writer) and rejection of the petition would lessen the taxonomic confusion which has surrounded *Ammodiscus* Reuss in recent years.

By Frances L. Parker (*Scripps Institute of Oceanography, La Jolla, California, U.S.A.*)

I wish to comment on the proposal of W. A. Macfadyen : *Ammodiscus* Reuss, 1862 (Foraminifera) ; proposed designation of a type-species under the plenary powers Z.N.(S.) 1087.

In my opinion, the proposed designation of *Spirillina arenacea* Williamson, 1858, as the type-species of *Ammodiscus* SHOULD NOT be approved for the following reasons:

1. The type-species proposed by Macfadyen does not confirm the generally accepted concept of *Ammodiscus* as a planispirally coiled arenaceous genus ; thus, this action *does not* stabilize the generally accepted concept of this genus.

2. A type-species has already been legally designated which *does* promote the stability of the genus, as follows : *Ammodiscus infimus* Bornemann (1874, Deutsch Geol. Gesell., Zeitschr., v. 26, p. 725) [*non Orbis infimus* Strickland, 1846]= *Involutina silicea* Terquem (1862, Mem. Acad. Imp. Metz., T. 42 [ser. 2, T. 9], p. 450) ; subsequently designated by Loeblich and Tappan (1954, *Journ. Washington Acad. Sci.*, t. 44, no. 10, p. 306) ; emended by Gerke (1960, Sbornik Statei po Paleontol. i Biostratig., Nauchno-Issledov. Inst. geol. Arktiki, Minist. Geol. i Okhrany Nedr SSSR, Vyp. 19, p. 7) *and* Loeblich and Tappan (1961, *Micropaleontology*, v. 7, no. 2, p. 191).

By Don L. Frizzell (*The University of Missouri, School of Mines and Metallurgy, Rolla, U.S.A.*)

Drs. A. R. Loeblich, Jr., and Helen Tappan have asked me to write regarding Macfadyen's petition (1962, *Bull. zool. Nomencl.* **19** : pt. 1, pp. 27–34, pls. 1–2) to replace the type-species of the foraminiferal genus *Ammodiscus*. The following points seem evident.

(1) " '*Orbis infimus* Strickland' of Bornemann " (1874) is unequivocally the type of the genus (first-named species in the genus—Art. 69(a)(ii)). *There is no possible question of subsequent designation.*

(2) Bornemann's material was misidentified. Actually it is *Involutina silicea* Terquem.

(3) A decision by the Commission is mandatory, validating either :

(a) *Orbis infimus* Strickland (Art. 70(a)(iii)), or

(b) " '*Orbis infimus* Strickland' of Bornemann (not Strickland)= *Involutina silicea* Terquem " (Art. 70(a)(i)).

(4) Because of the tremendous advances in the non-nomenclatural phases of taxonomy, currently being made, the classical concepts of generic limits are

no longer applicable. It is of slight importance which of the ammodiscoid forms receives the restricted name *Ammodiscus.*

(5) There is no such binomen as "*Ammodiscus infimus* Bornemann" (Loeblich and Tappan counter-proposal), and I do not believe that the Commission would be well advised to create one.

(6) I WOULD MOST STRONGLY RECOMMEND:

- (a) denying Macfadyen's petition; and
- (b) establishing the type-species of *Ammodiscus* as "'*Orbis infimus* Strickland' of Bornemann (not of Strickland) = *Involutina silicea* Terquem."
- (c) adding the appropriate generic and specific names to the official lists.

This solution would have the advantage of complete objectivity and is compatible with the spirit of the present Code.

By J. Hofker (*The Hague, Holland*)

I have read the propositions made by Mr. W. A. Macfadyen on *Ammodiscus* and *Involutina* and I herewith agree fully with this application, versus Loeblich and Tappan.

I am sure that the ideas of Loeblich and Tappan are not based on thorough biological analysis of the two genera involved, but only on theoretical analysis of some literature. Hence their misinterpretations, only partly redressed in their paper in 1961 (Micropal.) quoted also by Macfadyen.

COMMENTS ON THE PROPOSED SUPPRESSION OF *PLANORBINA* HALDEMAN, 1842, *TAPHIUS* ADAMS & ADAMS, 1853, AND *ARMIGERUS* CLESSIN, 1884. Z.N.(S.) 1392

(see volume 19, pages 39–41)

By Harold J. Walter (*Museum of Zoology, University of Michigan, Ann Arbor*)

I wish to submit arguments in opposition to the request made by C. A. Wright of the British Museum (Natural History).

In his request, Wright proposes to suppress the three generic names *Planorbina*, *Taphius*, and *Armigerus*; the reasons given are that "it is known" that these groups all should be united into a single taxonomic genus for which, he argues, the name *Biomphalaria* Preston, 1910, should be used. I expect to show here that such an action would result in a gross error in the case of the name *Taphius* and, accordingly, one must seriously consider the possibility of committing a further error in rejecting *Armigerus*. In addition I believe there are no good grounds for replacing the name *Planorbina* with *Biomphalaria*. I therefore urge rejection of the proposal to suppress these names.

Wright's position in this case is apparently founded on published opinions of leading workers in this field, B. Hubendick and W. Paraense and N. Deslandes, in particular. He says in his request to I.C.Z.N. that "the full details of the case have been discussed" by Barbosa, Wright, Hubendick, and Malek (1961, *Ann. Mag. nat. Hist.* (13) 4: 371–375) who state that Hubendick (1955, *Trans. Zool. Soc. London* 28(6): 453–542) has "demonstrated on anatomical evidence" that *Australorbis*, *Biomphalaria*, *Platytaphius* and *Tropicorbis* are "not distinct" and that they should be united into a single genus. Hubendick is cited in the nomenclatural proposal under question here, as authority for the anatomical proofs that *Taphius* and also *Platytaphius* Pilsbry, 1924 belong in that single genus.

The full details of the case have by no means been discussed; that Hubendick has made the demonstrations claimed for him, by all means must be discussed further, as part of the case. In his request Wright is apparently paraphrasing the following passage, among others, of Hubendick's paper (*op. cit.* p. 533):

" The *Biomphalaria* tribe includes the following genera: *Biomphalaria, Afroplanorbis, Australorbis, Tropicorbis, Taphius* and *Platytaphius* and probably *Syrioplanorbis*. It is the most uniform tribe within Planorbinae and its representatives are the least specialized discoidal planorbids. The whole tribe is anatomically so homogeneous that it is doubtful if the present separation into genera can be maintained. Neither the conchological nor the anatomical differences are really of generic value. The only obvious differences relate to the prostate, but these are superficial and various types can easily be derived from the same general main type."

These are sweeping statements ; acceptance of views as to what differences in what characters are of " generic value " or are " superficial " must depend on whether such particular statements are justified by sufficient and particular arguments. Hubendick has not made the necessary justifications ; on his data the content of the paragraph just quoted is questionable, and I will show here that the claim that his " whole *Biomphalaria* tribe " is anatomically " so homogeneous " is incorrect, although I agree that *Australorbis* and *Biomphalaria* which are here referred to as *Planorbina*, are so alike as to be generically inseparable.

I call attention to Hubendick's (*op. cit.*) separate accounts of the characters of the shell and soft parts of the various named genera, to p. 529, and to p. 536 in the same paper, wherein he summarizes particular data on the subject.

I submit that the data presented by Hubendick as they stand do not form a basis for the formulation of any but inconclusive and very tentative opinions on the value of different kinds of generic characters and of the status of the genera considered. One should note that (1) he has accounted for the structure of only a very few organs in each case ; (2) his descriptions of these are mostly illustrated and described in the barest outline, and that (3) for the most part he fails to account for the greatest amount of the snails' anatomy including entire organ-systems. Before considering the nomenclatorial matter at hand seriously, we should require not only confirmation of specific data he gives, but proof that a much more thorough, much more detailed and exacting body of knowledge of the morphology of these planorbids, stands behind the abbreviated evidence that is given. On his data, moreover, one can easily form conclusions opposed to his as to what characters are " generically valuable ", as I indicate below.

Paraense & Deslandes (1957, *Rev. Bras. Biol.* **17**, No. 2) cite their own investigations in support of opinions which concur with those of Wright and Hubendick on the questions that are under discussion here. Their morphological descriptions are relatively excellent, particularly in being illustrated clearly and in detail so that one has conviction about their accuracy. I do not question their data, but those very data can be used as I will show below to refute, or at least to cast extreme doubt on, the conclusions they draw from them with respect to the synonymy of *Planorbina, Taphius* and *Platytaphius*.

Here I will support my case by giving pertinent evidence from unpublished knowledge from my own researches and from data in a paper of mine (Walter, 1962, *Malacologia* **1**(1)) now in press. It is necessary to bring other Planorbidae, including a further subfamily, Bulininae, into this argument.

I have studied in detail certain characters of the soft parts as well as of the shell of *Planorbina* (=*Australorbis*) *glabrata* (Say), of *Planorbina* (=*Biomphalaria*) *pfeifferi gaudi* (Ranson) from Africa, of species of *Bulinus* s.l. and also, of *Planorbarius corneus* (Linné) as well as the shell of *Indoplanorbis exustus* (Deshayes). In my investigations, while giving attention to various morphological characters of the snails, I have particularly studied the female genital system and the sculpture of the embryonic shell, two things that have been greatly neglected by previous workers in the field, including Hubendick.

Among the Planorbidae I studied, I have found two extreme types of organization of the female genitalia, one characteristic of *Bulinus* s.l. and the other characteristic of *Planorbina* (see Plate 3, Figs. 1–3). The difference especially to be pointed out is that in the *Bulinus* type of genitalia (Fig. 1) there is a massive glandular structure which would correspond to the " nidamental " gland of certain authors (but not that of Paraense and Deslandes, 1957, *op. cit.*). This gland forms a large part of the wall of the more dorsal parts of the larger and broader main division of the female tract that is here called the " uterus " from which it is fully and markedly differentiated in terms of gross morphology. This gland presents a very broad, flattened surface to the lumen of the uterus and numerous, often gaping, pores occur over that surface ; the gland is composed of numerous tubular follicles which are compactly bound together in more or less parallel fashion and more or less vertically to the broad surface on to which they open by means of the pores. The blind termini of the follicles protrude somewhat, on the opposite outer-facing surface, so as to produce a coarsely " granular " texture overall. In the *Planorbina* (Fig. 2) I studied there is no structure comparable to this in terms of descriptive anatomy. In the corresponding region of the " uterus ", i.e. in the " upper " part, there is only a simple, smooth glandular pouch-like evagination (" nidamental gland ") of the uterine wall, which is broadly confluent with the remainder of the tract and which encloses a single cavity that communicates widely with the lumen of the uterus. There are only some weak, ill-defined lobulations (slight out-pocketings) of the margin of this pouch, which merges in texture very gradually into the substance of the uterine wall, in the material I have studied.

I found other female characters to be correlated with the above differences between *Planorbina* and *Bulinus*. In *Bulinus* (Fig. 1) the uterus is relatively very broad and short ; in *Planorbina* (Fig. 2), the uterus is narrow and long, and in specimens that are well extended it is very long and very slender. In *Bulinus* the " oviduct ", which leads into the uterus, has a terminal glandular enlargement which is complexly and deeply folded internally ; this enlargement is abruptly, narrowly constricted at its outlet, and is practically sessile on the uterus. In *Planorbina* (Fig. 2) the oviduct, by contrast, shows no complications of the terminal portion and it tapers very gradually to its simple attachment on the uterus. The " vagina " of *Bulinus* is a simple, narrow tube, whereas there is an enlargement with some internal special development of folds in that of *Planorbina*. A number of other more subtle correlations with those characters exist which could only properly be appreciated by one who has had considerable direct experience with them ; one of the less subtle of these involves a relatively somewhat simpler " carrefour complex " in *Planorbina*.

Structural correlations with the foregoing differences are found in the male genital system. *Bulinus* s.l. has a prostate gland (Fig. 3c) that is markedly differentiated in terms of gross morphology from the remainder of the male system. This gland is composed of a compact mass of follicles which radiate outward from a well-defined " elbow " of the male duct, where they originate. The gland is, as a result, sessile on an extremely short portion, practically a point, on the duct. The prostatic follicles of *Planorbina* (Fig. 3a) arise for the most part, in a linear series and clearly separate, from a long section of the male tract ; the follicles tend to be arranged in parallel fashion, mostly at right angles to the duct, although those nearer either end of the prostate tend to be arranged radially. This type of " prostate " is not a well-delimited " organ " as such.

A correlation of a special conchological character with each of the two foregoing types of genitalia exists : the shells of all *Bulinus* s.l., as well as *Indoplanorbis*, and therefore of all Bulininae, have densely punctate (pitted) embryonic whorls, whereas the embryonic whorls of *Planorbina* I have studied are totally devoid of such punctation (Walter, 1962, *op. cit.*).

All of the characters I describe above for *Planorbina* apply equally well to my material of the African and South American species, *P. glabrata* and *P. pfeifferi gaudi*.

To my knowledge, no one else has yet published an account of the characters of any planorbid nearly as thorough, on the structures considered, as that I have just given ; and as a result a thorough point by point comparison of my data with those published by others cannot be made ; even the excellent illustrations (and the accompanying texts) of Paraense and Deslandes (1957, *op. cit.*) leave morphological features unaccounted for which are pertinent to this argument. I will carry out such a comparison here as far as possible, however.

In support of my own data on *Planorbina*, as given above, I call attention to Paraense's paper (1958, *op. cit.*, p. 68, 69) and the illustrations therein of comparable parts of the anatomy of " *Taphius glabratus* (Say) ", (=*Planorbis quadalupensis* Sowerby, 1821) the type-species of *Australorbis* Pilsbry, 1934, and " *Taphius liebmanni* Dunker ". The fundamental agreement of these illustrations (as far as they go into detail) with mine (Fig. 2) can hardly be doubted, although the prostate of " *T. glabratus* " as they figure it, appears to be somewhat more compact than in the Surinam strain I studied (Fig. 3a).

As for the type-species of *Biomphalaria*, B. (=*Planorbina*) *smithi* (Preston), Hubendick (1955, *op. cit.*), Ranson (1953, *Bull. Soc. Path. exot.* **46**(5) : 783–810) and Mandahl-Barth (1958, *Wrld. Hlth Org. Mon. Ser.* No. 37, 132 pp.) have described its genital anatomy, but none of them have done so adequately. Of these, only Ranson has given a fairly complete description, as illustrated by his figure (*op. cit.* p. 799, fig. 3). On comparing Ranson's figure with those of mine (Fig. 2) and those of Paraense and Deslandes cited here, one can see, despite inadequacies of Ranson's drawing, that at least superficially the female organs and prostate as shown for " *Planorbis smithi* " are much like those of *Planorbina glabrata* and *P. pfeifferi gaudi*. As support for my data on *Bulinus* I can cite the only highly accurate published illustration of *Bulinus* anatomy known to me, which is that of Demain (1960, *Ain Shams Sci. Bull.* No. 5, 84 pp., Pl. VI, figs. 22 and 23) which, as far as it goes, completely agrees with my findings, although it does not suffice fully for my present purpose.

Now, as for *Taphius*, if one looks at the illustration of the anatomy of *Taphius andecolus* (d'Orbigny), the type-species of the genus, in Paraense and Deslandes (1957, *Rev. Brasil. Biol.* **17**(2) : 238, 239, Figs. 11, 16) and Paraense (1958, *Rev. Brasil. Biol.* **18**(1) : 73, Fig. 7), one can see the apparent massiveness of the " pouch of the oviduct " (po). One should note that in the first mentioned paper (p. 235) the authors say that this " pouch " is " the most characteristic feature of the female genitalia [and that it] occupies about two-thirds of the mass of organs between the oviduct and vagina ", and (p. 243) that it is " extraordinarily developed ". One should note that they illustrate and refer to its " granulous surface ", and that the whole complex of the female organs figured is very broad and short. The prostate gland (p) as illustrated is massive, with follicles that strongly tend to be radiately arranged, and it is attached along only a fairly short portion of the male duct (sd. to vd.).

It therefore can be said from the foregoing that *Taphius andecolus*, which is supposedly a member of Planorbinae, is in grossly apparent characters of the female system more similar to members of the subfamily Bulininae than it is to *Planorbina*, and that the structure of the prostate tends to be such as one might expect if this were so.

Furthermore, if *Taphius* is indeed a senior synonym of *Platytaphius*, as Wright and Hubendick believe (although this is quite open to question), then the bulinine relationship of *Taphius* is strengthened on the grounds that *Platytaphius* has a punctate embryonic whorl which F. C. Baker (1945, *The Molluscan Family Planorbidae*, Univ. Ill. Press, p. 121) has described, for this would mean that *Taphius* is an apically punctate genus, and yet more divergent in character from *Planorbina*. Thus, doubt is raised as to whether *Taphius* really belongs in the same subfamily as *Planorbina* ! It is not yet known, to be sure, if *T. andecolus* has a punctate embryonic shell or whether the type-species of *Biomphalaria* has a non-punctate embryonic whorl.

Since these findings and conclusions are rather unexpected and perhaps revolutionary, it seems advisable to give further support to them, which may be done by giving some of my unpublished observations on *Planorbarius* and by citing published data by F. C. Baker (1945, *op. cit.*). Baker's illustrations of the female anatomy and prostate of *Planorbarius* (p. 277, Pl. 20, Fig. 13), which are erroneous in part and have a certain crudity, indicate certain gross features that are reminiscent of those of *Bulinus*. My own findings on *Planorbarius* prove that the similarity is more than apparent ; in fact, my description here of the female parts of *Bulinus* would serve very well as a description of the anatomy of *Planorbarius corneus* except for some proportional differences and except that I have not yet determined with certainty that the massive " nidamental " gland of the species, as it seems, does consist of numerous follicles. The prostate of *P. corneus* (Fig. 3b) is relatively compact and massive, consisting of many follicles and, for its large size, its attachment is limited to a relatively short section of the male duct, from which the follicles flare out radiately. I have also ascertained that the embryonic whorl of *Planorbarius* is strongly, densely punctate. On present information, then, *Taphius, Planorbarius* and *Bulinus* have a series of particular similarities, some of a gross nature, that cannot be ignored and which indicate that a special genetic relationship exists between them.

It appears that no one seriously believes that a close genetic relationship between *Planorbarius* and *Planorbina* exists ; Hubendick himself assigned them to different tribes of the Planorbinae (1955, *op. cit.*). *Taphius* likewise should not be taken to be particularly related to *Planorbina*, although on grounds not previously appreciated.

On considering the pertinent literature, it would seem that the views of those who wish to unite the several genera are conditioned by an acceptance of Hubendick's emphasis on the fundamental taxonomic importance of the terminal male genitalia (penial complex) with an almost total oversight of the possible significance of female structures. It would of course be exaggerating to say that we might be tempted to assign *Taphius* to the Lymnaeidae if we were classifying it on meagre data and were to place emphasis on structure of the penial complex, and then, as Hubendick (1955, p. 529) has done in respect to *Taphius* and *Platytaphius*, were to disavow peculiarities of its prostate (there is no essential known difference between Lymnaeidae, and Planorbidade such as *Taphius* and *Planorbina*, in characters of the penial complex). It is certainly true that the Bulininae, *Planorbarius*, and *Taphius* differ greatly from each other in structure of the male copulatory organs, but this does not override the evidence of a relationship between these three taxa. There is good reason to suppose that the terminal male genitalia in these snails, as in so many other organisms, are among the most evolutionarily plastic of organs. It must be admitted at any rate that adaptive modifications in other parts of the male system and of the major structure of the female system that have to do with " nidification " (formation of the egg-masses, etc.) may well be more conservative and be indicative of the more fundamental evolutionary steps that genera and higher categories represent.

On reviewing the literature, especially the numerous papers of Paraense and Deslandes, one finds evidence that there might be no fundamental taxonomic cleavage between snails having the *Bulinus*-type of genital anatomy (ignoring the penial complex) and those having the *Planorbina*-type, because a series of more or less intermediate types seem to exist among the various genera. Nevertheless, on present data, *Taphius* and *Planorbina* seem to belong near the opposite extreme ends of an evolutionary series (as suggested by Figs. 1, 2, and 3) that is represented by an array of types of genital structures that exist today in the nominal subfamily Planorbinae.

Lastly, in view of the several distinctive features of *Taphius* that have been mentioned above, the known striking differences in general shape between its shell and the shell of *Planorbina*, which others have set aside, could be taken as significant support for an argument that the two genera should be far removed from each other taxonomically. The degree of known and probable difference between *Taphius* and *Planorbina*, in my opinion, is more than sufficient for recognition of them as separate genera, and future attention to the matter of punctation of the embryonic shell and to details of anatomy not yet known may well bear out

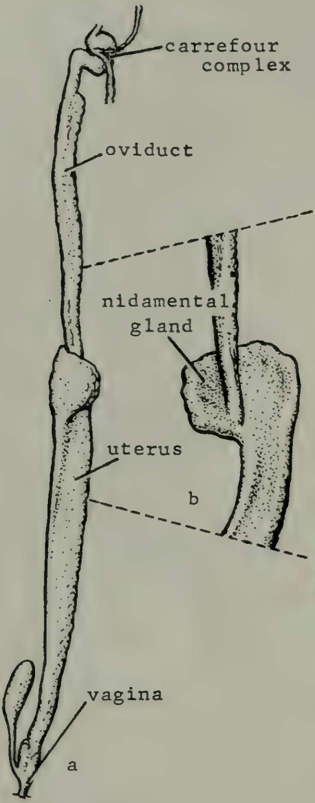
carrefour complex
oviduct
nidamental gland
uterus
b
vagina
a

Fig. 2

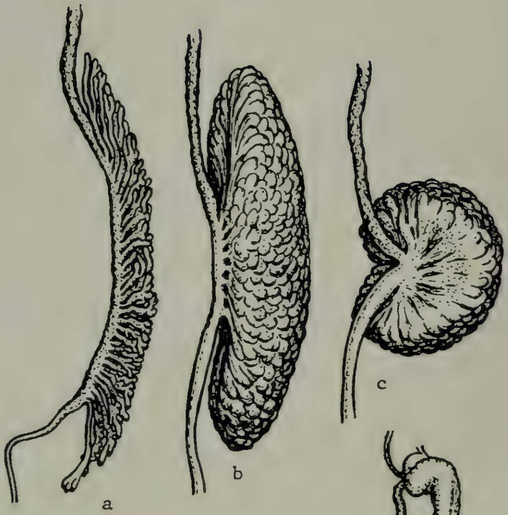

Fig. 3

BRITISH MUSEUM (NATURAL HISTORY)

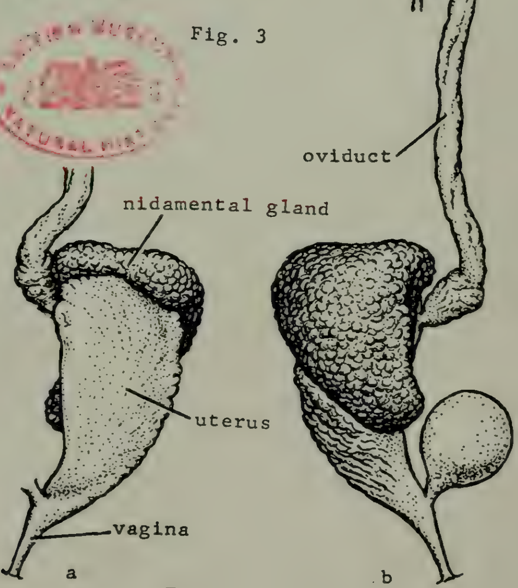
oviduct
nidamental gland
uterus
vagina
a
b

Fig. 1

this distinction more fully. Further evidence might be advanced in favour of my position in this case, but I will leave them aside along with the matter of the name *Armigerus* which is also proposed for suppression by Wright; I believe that what I have given here ought to be sufficient to forestall a possible suppression of the name *Taphius* Adams & Adams, which if done would be an error that would make a generic name unavailable without justification, and which would thereby set a regrettable precedent in zoological nomenclature.

LEGEND TO PLATE 3

Features of the genital anatomy of *Planorbina*, *Planorbarius* and *Bulinus* for comparison with those of *Taphius*, as in Paraense & Deslandes (1957, p. 239, Fig. 11, p. 239, Fig. 16, *op. cit.*)

Drawings based on dissections of living and preserved relaxed specimens. Not to scale. Nidamental gland here equivalent to pouch of oviduct (po) of Paraense & Deslandes; note that their figures for *Taphius* especially resemble Fig. 1a, b, and Fig. 3b here.

Figure 1. Female genital system of *Bulinus*, showing shortness and great breadth of uterus, the very large, massive and "granular", *not* pouch-like nidamental gland, and the glandular enlargement at terminal end of oviduct. Although the vagina is capable of much greater extension or contraction than shown, the uterine region with its gland can be so modified only to a slight extent.
Drawings made from *Bulinus* (*Bulinus*) *truncatus* (Audouin).

- (a) Largest lower part of system, ventral aspect, with terminal part of oviduct in natural position.
- (b) Whole system (albumen gland excluded), dorsal aspect, with terminal part of oviduct pulled aside to show mode of attachment.

Figure 2. Female genital system of *Planorbina*. Drawings based on *P. glabrata* (Say) and *P. pfeifferi gaudi* (Ranson).

- (a) Whole system (albumen gland excluded), showing slender shape; with nidamental gland in natural position wrapped forward and over to right of uterus. Slenderness of whole system may be somewhat less or considerably greater than shown, depending on state of contraction and some difference between the species.
- (b) Upper uterine region, with nidamental gland folded back to show it is a simple evagination of the uterus.

Figure 3. Type of prostate of some Planorbidae, shown as if in evolutionary sequence.

- (a) Less concentrated type, of *Planorbina*: follicles mostly arise directly from and along a lengthy portion of the male duct to form a long, much flattened crest, and are loosely arranged.
Drawing made from *P. glabrata* (Say) of Surinam.
- (b) A more concentrated type, of *Planorbarius corneus*: follicles radiate outward from a short section of the male duct to form a relatively compact, massive structure.
- (c) Highly concentrated type, of *Bulinus*: follicles radiate outward from a point on the male duct and are very solidly massed together to form an extremely well-defined organ. Drawing made from *Bulinus* (*Physopsis*) *globosus* (Morelet).

By Sheila M. Willmott (*Commonwealth Bureau of Helminthology, St. Albans, England*)

I am not a malacologist but I am very much concerned with the names of the schistosome intermediaries as a helminthologist and as editor of *Helminthological Abstracts*. From every point of view it is essential that the names of the intermediate hosts of *Schistosoma mansoni* should be stabilized in order to avoid further confusion in the very extensive literature on the subject.

If it is accepted that the nominal genera *Australorbis*, *Biomphalaria*, *Platyta-*

phius, Taphius and *Tropicorbis* should be united into a single genus, then I strongly support Dr. C. A. Wright's application. My reasons for this are :

(1) That the persons most concerned with these gastropods are the workers on schistosomiasis ;

(2) that *Taphius, Planorbina* and *Armigerus* are names rarely used and not generally accepted ;

(3) that *Biomphalaria* is the most widely accepted and extensively used name.

By Emile A. Malek (*Tulane University, New Orleans, Louisiana, U.S.A.*)

I am writing in support of Dr. C. A. Wright's application to suppress the generic name *Planorbina* Haldeman, 1842, *Taphius* Adams & Adams, 1855, and *Armigerus* Clessin, 1884, I am also in favour of his request to place the genus *Biomphalaria* Preston, 1910, on the Official List of Generic Names. This I believe will eliminate the great confusion which exists at present in the generic nomenclature of the intermediate hosts of *Schistosoma mansoni.*

The case in favour of adopting *Biomphalaria* has been clearly presented by Barbosa et al (*Ann. Mag. nat. Hist.* 1961). It seems that *Biomphalaria* is the most appropriate name for the group comprising the following congeneric forms: *Australorbis, Biomphalaria, Platytaphius, Taphius, Tropicorbis, Armigerus* and *Planorbina.*

By F. S. Barbosa (*University of Recife, Brazil*)

It is well known that the Planorbid snails which are actual or potential vectors of the Trematode *Schistosoma mansoni* in both continents (Africa and America) are generically indistinguishable.

During the last ten years I have been dealing with malacological aspects of Bilharziasis and some of this work has been directed towards the taxonomy of the snail vectors.

Although recognizing that the genera *Taphius* H. & A. Adams, 1855 ; *Biomphalaria* Preston, 1910 ; *Tropicorbis* Pilsbry & Brown, 1914 ; *Platytaphius* Pilsbry, 1924 and *Australorbis* Pilsbry, 1934, are congeneric I have been conservative in using the old generic names until a decision of the Commission.

Besides the above genera, *Planorbina* Haldeman, 1842 stands as probably the oldest generic name to be applied to the group of snails under question.

Now, however, when a final decision is to be taken by the Commission I am convinced that the suggestion proposed by Dr. C. A. Wright in supporting *Biomphalaria* is the most judicious by the reasons already exposed by him.

I express my full support for Dr. Wright's application in asking the Commission to place *Biomphalaria* on the Official List of Generic Names, suppressing the other generic names.

Papers by Dr. F. S. Barbosa dealing with the problem :

Barbosa, F. S., 1958. The snail hosts of *Schistosoma mansoni* and transmission of schistosomiasis in Brazil. XVth International Congress of Zoology, Sect. VIII, paper 18, London

Barbosa F. S. and Carneiro, E., 1959. Moluscos Africanos e Sul Americanos da Tribo *Biomphalaria* (Planorbidae). Actas y Trabajos del Primer Congreso Sudamericano de Zoologia. Tomo II, Buenos Aires

Barbosa F. S., 1960. Proven and Potential Vectors of the Trematode *Schistosoma mansoni* in South America. (*Rev. Brasil Biol.* **20**(2) : 183–190)

REPLY TO H. J. WALTER'S OBJECTION TO THE PROPOSAL TO SUPPRESS *PLANORBINA* HALDEMAN, 1842, *TAPHIUS* ADAMS AND ADAMS, 1853, AND *ARMIGERUS* CLESSIN, 1884

By C. A. Wright (*British Museum (Natural History), London*

Walter's objections to my application appear to be based on the assumption that I have no experience of the problem and on certain technical features which are not mentioned by other workers but which he considers to be of taxonomic importance.

In reply I would like to make it clear that I am probably the only individual concerned in this controversy who has examined the type-specimens of *Taphius andecolus* and *Biomphalaria smithi* and who has also dissected topotype material of both these species and of *Platytaphius heteropleurus*. In my application to the Commission I quoted published papers by other authors for the sake of brevity and in order to avoid tedious repetition.

Walter's comparisons between the gross genital anatomy of *Biomphalaria* and *Bulinus* are irrelevant to the discussion and he appears to have overlooked Larambergue's excellent description of *Bulinus* (*Bull. Biol.* 73(1–2), 1939) and my own histological comparison between the reproductive system of *Bulinus* (*Bull. Brit. Mus.* (*Nat. Hist.*) *Zool.* 5(1) : 1–28, 1957) and that of *Biomphalaria* (Malek, *Trans. Amer. micr. Soc.* 73(3) : 285–296, 1954).

Walter's point concerning the nidamental gland in *Biomphalaria* and *Taphius* is based on differences in their superficial appearance and relative size. This structure varies in appearance with the maturity of the snail and it is usually more voluminous in forms whose whorls increase rapidly in size than it is in the long-bodied species whose whorls increase less rapidly. This is excellently illustrated by several species of the planorbid genus *Gyraulus*. The two species on which Walter appears to have worked are *Biomphalaria pfeifferi* and *Australorbis glabratus*, both species with relatively slowly increasing whorls, and his comparison is made with Paraense's illustrations and description of *Taphius andecolus*, a species whose whorls increase in size very rapidly. Much the same argument applies to his discussion of the prostate. The organ in *Taphius* is definitely not like that in *Bulinus* and the prostate in *Biomphalaria smithi* is of a more contracted form than that in the long-bodied species.

Walter quotes F. C. Baker as saying that the embryonic whorl of *Platytaphius* is punctate and he uses this statement to suggest that if, perhaps, the embryonic whorl of *Taphius* is also punctate then it will be evidence of its closer relationship to *Bulinus* than to *Biomphalaria*. Walter has failed to differentiate between the coarse, regular punctate pattern present in *Bulinus* and the extremely fine punctation present in most *Biomphalaria* (which Walter appears to have overlooked). I have compared topotype specimens of *Platytaphius heteropleurus* with the type series of *Taphius andecolus* and *Biomphalaria smithi* and all three species have an extremely fine punctate sculpture of the embryonic whorl which is also present in laboratory bred specimens of *Biomphalaria sudanica* and *B. rueppelli*.

Finally Walter draws attention to the distinctive shell shape of *Taphius andecolus* and suggests that this alone is sufficient reason for the wide generic separation of *Taphius* and *Biomphalaria*. *T. andecolus* is in fact a lake-dwelling species (L. Titicaca) and it resembles some of the *Biomphalaria choanomphala* species group from the East African lakes more closely than these lake forms resemble the other African *Biomphalaria*.

In the light of Walter's comments I have re-examined the material available and have no reason to alter my original opinion, shared with many other workers who have had personal experience of the problems involved, that *Taphius* and *Biomphalaria* are congeneric. I also continue to believe that the best interests of nomenclature will be served by the suppression of the names *Planorbina*, *Taphius* and *Armigerus*.

COMMENTS ON THE PROPOSED VALIDATION OF *PARTHENOPE* FABRICIUS, 1798. Z.N.(S.) 1487

(see vol. 19, pages 58–60, 314)

By John S. Garth (*Allan Hancock Foundation, Los Angeles, California, U.S.A.*)

The following comments are submitted for consideration by the International Commission on Zoological Nomenclature in connection with the proposal by Dr. L. B. Holthuis calling for the suppression, under the plenary powers, of the names *Parthenope* Weber, 1795, and *Daldorfia* Rathbun, 1904 (Crustacea Decapoda). As one of the two American authors mentioned in paragraph 4 of the Holthuis application as having used these names in monographic works, and as the only surviving author, I feel that my position in so doing, and that of other writers who have followed the late Mary J. Rathbun in publications of less than revisionary scope, should be made a matter of record.

Dr. Holthuis has been completely fair in his statement of the facts in this case. The legality of Miss Rathbun's action in selecting *Cancer longimanus* Linn., 1758, to be the type-species of *Parthenope* Weber, with its attendant consequences, is freely admitted by him, and needs no further comment. It is only his conclusion that a change is needed " in the interest of stability and uniformity of carcinological nomenclature " that is questioned, when the arguments presented would appear to justify such a change only as a matter of convenience to a larger number of workers, who have found it not to their liking to follow the legally correct position in this instance.

Fortunately for American carcinology, there has never been any indecision over which of the two names, *Parthenope* Weber, or *Lambrus* Leach, 1815, to use for the dozen or so species of the genus containing *Cancer longimanus* that occur in amphi-American waters. The matter was settled forthrightly, and at for us an early date, by a competent worker who proved to be years ahead of her contemporaries in recognizing the importance of, and in applying impartially, the rule of priority to systematic studies. Had European carcinologists followed suit, the comparative stability enjoyed since 1904 in carcinological nomenclature on this side of the Atlantic might have been extended to the other side as well, and Holthuis would not have been obliged to enumerate a longer list of authors who have honoured the 1904 change rather in its breach than in its acceptance. The American species have rarely, and many of them never, been referred to by names other than those established by Rathbun in 1904, and, having enjoyed the use of these legally established names for over half a century, American workers are not eager to abandon this fortunate state for a return to the pre-existing situation.

In contrast to the non-American authors, at least some of whom have used the names in the sense that Holthuis would like to see abandoned, the American authors have been uniformly consistent in this regard, none to my knowledge having adopted the European nomenclature even when dealing with Indo-west Pacific species. It was to preserve this record for consistency, as well as to uphold a position taken by an admired colleague, a position which I believe to have been the correct one, that I elected to follow Rathbun in my revision of the Brachyura Oxyrhyncha of the Pacific Coast of America (Garth, 1958, Allan Hancock Pac. Exped. **21**(1) : 432–458). I assume that those who did likewise were similarly motivated.

Before 1940, the question of which name, *Parthenope* Fabricius, 1798, or *Daldorfia* Rathbun, 1904, to apply to the genus containing *Cancer horridus* Linn., 1758, was for American writers an academic one, since the genus was not known to occur in the New World. In that year, however, Glassell (in Garth, 1940, Allan Hancock Pac. Exped. **5**(3) : 67), in a publication not referred to by Holthuis, described the first American species. After correspondence with F. A. Chace, Jr., C. H. Edmondson, and others, Glassell described the American species under the name *Daldorfia*, and it also, to my knowledge, has never been called by any other name. These facts are not stated in the Holthuis proposal.

In conclusion, the position taken by American carcinologists since 1904 in this and similar matters, including the late Mary J. Rathbun and S. A. Glassell, who cannot now speak for themselves, may be summed up in the words of Commissioner Hemming (1962, *Bull. zool. Nomencl.* **19**(3) : 153) : " I consider that, when . . . there is a substantial usage both for the correct name for a given taxon and for an incorrect name for that taxon, preference should be given to the valid name by the Commission and that the plenary powers should accordingly not be used."

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

I have just received *Bull. zool. Nomencl.* **19**(5) which contains (on p. 314) the comments by Dr. D. S. Johnson on my proposal to the Commission relating to the above generic names. I should like to make the following remarks concerning Dr. Johnson's statements:

(1) I was not aware that Miss Buitendijk's (1939, *Temminckia* **4** : 265, 266; 1950, *Bull. Raffles Mus.* **21** : 69, 70) adoption of the " correct " nomenclature, in which she was followed by Tweedie had been accepted by all zoological institutions in Malaya and used in the popular literature there. I have to admit that this is one more argument against the use of the plenary powers in this case.

(2) On the other hand by restricting his judgment by the situation as it occurs in Malaya, Dr. Johnson gives a one-sided picture, and his remark that the acceptance of my proposal " will provoke widespread nomenclatural confusion and instability in the Indo-Australian area " is somewhat exaggerated to say the least. Mr. Chuang's 1961 popular " On Malayan shores " which I have not seen is cited as a non-specialist work using the " correct " nomenclature. However, in the popular literature in Japan, which, because of its beautifully executed coloured figures, is used not only in Japan but also in the rest of the Indo-West Pacific region and known over the entire world, the " incorrect " nomenclature is adopted (*Illustr. Encycl. Fauna Japan*, **1954** : 700, 701; Utinomi, 1956, *Sea Shore Animals Japan* : 78, 80; Okada, Taki, Sakai & Abe, 1958, *Illustr. Pocketbook Japan. Fauna in Colour*, **2** : 125; Sakai, 1960, *Encycl. Zool. Illustr. Colour* **4** : 53), while this nomenclature, e.g. also is used in the popular " Petite Histoire naturelle des Etablissements Français de l'Océanie " (**2** : 91) by Chabouis (1954).

(3) That I did not mention many authorities later than 1950 (apart from Balss, 1957, I did also cite Monod, 1956 as using the " incorrect " nomenclature) is because I only cited the more important manuals, which will exert their influence for a long time to come. So, workers on European Parthenopidae will use Bouvier's (1940), and Zariquiey's (1946) works, simply because there are no more recent handbooks. These books as well as the more recent papers and popular books (like Luther & Fiedler's 1961, *Unterwasserfauna der Mittelmeerküsten* : 153) dealing with European crabs all use the " incorrect " nomenclature. For West Africa Monod's (1956) and for South Africa Barnard's (1950) splendid monographs will be used by anyone studying the crabs of these regions. For the Indo-West Pacific area the papers mentioned by me in my proposal are still the fundamental monographs. Many authors publishing on the Indo-West Pacific crabs since 1950 do use the " incorrect " nomenclature, these authors (like Pillai (1951) and Chhapgar (1957) for India, Dawydoff, 1952 for Vietnam, Forest & Guinot, 1961 for Polynesia) have not been cited by me since their papers like those by Buitendick and Tweedie, though important, are not actual handbooks. As far as European literature since 1950 is concerned I know of no author using the " correct " nomenclature. The same is true for West and South Africa. Therefore the authors who since 1950 used the incorrect nomenclature certainly cannot be defined as just " a few European workers " as Dr. Johnson wrote.

Concluding I may remark that Dr. Johnson's indication that the " correct " nomenclature has been generally accepted everywhere in Malaya is a very worth while bit of information, which was not known to me, and which does weaken my arguments for the suspension of the Rules. But as far as I know this situation does not exist anywhere else in the Indo-West Pacific area except perhaps in Hawaii, though Edmondson (1946, *Spec. Publ. Bishop Museum* **22** : 274, 275) used the generic name *Parthenope* for both genera.

OPINION 649

AMBYSTOMA TSCHUDI, 1838 (AMPHIBIA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following generic names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *Axolotus* Jarocki, 1822;
(b) *Philhydrus* Brookes, 1828;
(c) *Siredon* Wagler, 1830;
(d) *Phyllhydrus* Gray, 1831;
(e) *Axolot* Bonaparte, 1831;
(f) *Sirenodon* Wiegmann, 1832;
(g) *Stegoporus* Wiegmann, 1832.

(2) The generic name *Ambystoma* Tschudi, 1838 (gender: neuter), type-species, by monotypy, *Lacerta subviolacea* Barton, 1804, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1509.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *maculata* Shaw, 1802, as published in the binomen *Lacerta maculata* (Name No. 1868);
(b) *mexicanus* Shaw, 1789, as published in the binomen *Gyrinus mexicanus* (Name No. 1869).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) The following generic names as suppressed under the plenary powers in (1) above:
    (i) *Axolotus* Jarocki, 1822 (Name No. 1591);
    (ii) *Philhydrus* Brookes, 1828 (Name No. 1592);
    (iii) *Siredon* Wagler, 1830 (Name No. 1593);
    (iv) *Phyllhydrus* Gray, 1831 (Name No. 1594);
    (v) *Axolot* Bonaparte, 1831 (Name No. 1595);
    (vi) *Sirenodon* Wiegmann, 1832 (Name No. 1596);
    (vii) *Stegoporus* Wiegmann, 1832 (Name No. 1597);
(b) *Amblystoma* Agassiz, 1846 (an invalid emendation of *Ambystoma* Tschudi, 1838) (Name No. 1598).

(5) The family-group name AMBYSTOMATIDAE (correction of AMBYSTOMIDAE) Hallowell, 1856 (type-genus *Ambystoma* Tschudi, 1838) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 337.

(6) The family-group name AMBYSTOMIDAE Hallowell, 1856 (type-genus *Ambystoma* Tschudi, 1838) (an incorrect original spelling for AMBYSTOMATIDAE) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 367.

HISTORY OF THE CASE (Z.N.(S.) 762)

The present case was first submitted to the office of the Commission in August 1956 by the late Dr. Karl P. Schmidt. In July 1960 Professor Hobart

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M. Smith and Dr. Joseph A. Tihen, having independently investigated the problem, also submitted an application. Since the latter paper was the more inclusive it was decided by the Secretary to the Commission that it be advanced in lieu of the former. The application was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 172–176. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. No objection to the proposal was received.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)3 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 175–176. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23) received in the following order : Hering, Holthuis, Evans, Munroe, Mayr, Vokes, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Jaczewski, Tortonese, Bradley, Boschma, Mertens, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2) : Brinck, Prantl.

Voting Papers not returned—two (2) : Hemming, Obruchev.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Amblystoma Agassiz, 1846, *Nomen. Zool.* (Rept.) : 2
Ambystoma Tschudi, 1838, *Classification der Batrachier* [*Mém. Soc. Sci. nat. Neuchâtel* 2(1840)] : 57, 92
AMBYSTOMATIDAE Hallowell, 1856, *Proc. Acad. nat. Sci. Philad.* **8** : 11
AMBYSTOMIDAE Hallowell, 1856, an incorrect original spelling for AMBYSTOMATIDAE q.v.
Axolot Bonaparte, 1831, *Giorn. Arcad. Sci. Lett. Arti* **49** : 77
Axolotus Jarocki, 1822, *Zoologii* . . . **3**(Gady i plazy) : 179
maculata, Lacerta, Shaw, 1802, *Gen. Zool.* **3**(1) : 304
mexicanus, Gyrinus, Shaw, 1789, *Nat. Misc.* **9** : 343–4
Philhydrus Brookes, 1828, *Prodr. Syn. Anim. Brookesian Mus.* : 16
Phyllhydrus Gray, 1831, Griffith's *Cuvier's Anim. Kingd.* **9**, *Syn. Spec.* : 108
Siredon Wagler, 1830, *Syst. Amph.* : 209, 210
Sirenodon Wiegmann, 1832, *in* Wiegmann & Ruthe, *Handb. Zool.* (ed. 2) : 204
Stegoporus Wiegmann, 1832, *in* Wiegmann & Ruthe, *Handb. Zool.* (ed. 2) : 204

CERTIFICATE

WE certify that the votes cast on Voting Paper (62)3 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted

under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 649.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
11 *May* 1962

COMMENTS ON THE PROPOSED SUPPRESSION OF *CYPRAEA PIPERITA* GRAY, 1825

By Ray H. Summers (*Petaluma, California, U.S.A.*)

(see volume 19, pages 317–322)

I have one of the three largest and most complete private collections of *Cypraea* in the world and specialize in the Cypraeidae particularly in the identification of them by the study of their morphological features.

I am very interested in the stabilization of the nomenclature to correct the confusion that now exists. I am in complete agreement with Griffiths' recommendations except the alternative to retain *C. piperita* and rule *bicolor* a synonym. I do not feel that the name *C. piperita* is suitable for *C. bicolor*, and there is probably as many or more specimens labelled *C. bicolor* in collections than there is those labelled *C. piperita*.

The collectors, who specialize in *Cypraea*, that I have talked with are in agreement with the above.

The use of the name *C. angustata* by some conchologists for *C. fuscodentata* is very undesirable as the latter does not have lateral spots.

By Ernst Mayr (*Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.*)

It would seem infinitely better to adopt the alternative listed by Griffiths in the last paragraph on page 320. To select a neotype for *C. piperita* in accordance with modern usage would be entirely in accordance with stability and universality, and preserve usage of the name *piperita* as established by Sowerby's interpretation as made in 1832. I would like to call attention to the fact that the Commission has repeatedly used its plenary powers in recent years for such neotype designations that would serve stability and universality of usage. I would strongly favour such an action by the Commission in order to preserve such a well-known name as *C. piperita*.

OPINION 650

GRAPTOLITE GENERIC NAMES : VALIDATION OF CERTAIN EMENDATIONS UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers :

(a) the generic name *Dichograpsus* Salter, 1861, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(b) the following emendations are hereby validated :

- (i) *Acanthograpsus* Spencer, 1878, to *Acanthograptus* ;
- (ii) *Calyptograpsus* Spencer, 1878, to *Calyptograptus* ;
- (iii) *Cephalograpsus* Hopkinson, 1869, to *Cephalograptus* ;
- (iv) *Clonograpsus* Hall & Nicholson, 1873, to *Clonograptus* ;
- (v) *Dicellograpsus* Hopkinson, 1871, to *Dicellograptus* ;
- (vi) *Didymograpsus* McCoy, (1851), to *Didymograptus* ;
- (vii) *Diplograpsis* McCoy, 1850, to *Diplograptus* ;
- (viii) *Glossograpsus* Emmons, 1855, to *Glossograptus* ;
- (ix) *Nemagrapsus* Emmons, 1855, to *Nemagraptus* ;
- (x) *Pleurograpsus* Nicholson, 1867, to *Pleurograptus* ;
- (xi) *Rhizograpsus* Spencer, 1878, to *Rhizograptus* ;
- (xii) *Staurograpsus* Emmons, 1855, to *Staurograptus* ;
- (xiii) *Tetragrapsus* Salter, 1863, to *Tetragraptus*
- (xiv) *Trigonograpsus* Nicholson, 1869, to *Trigonograptus*.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Acanthograptus* Spencer, 1878 (gender : masculine), type-species, by monotypy, *Acanthograpsus* [sic] *granti* Spencer, 1878 (Name No. 1510) ;

(b) *Calyptograptus* Spencer, 1878 (gender : masculine), type-species, by designation by Miller, 1889, *Calyptograpsus* [sic] *cyathiformis* Spencer, 1878 (Name No. 1511) ;

(c) *Cephalograptus* Hopkinson, 1869 (gender : masculine), type-species, by monotypy, *Diplograpsus* [sic] *cometa* Geinitz, 1852 (Name No. 1512) ;

(d) *Clonograptus* Hall & Nicholson, 1873 (gender : masculine), type-species, by designation by Miller, 1889, *Graptolithus rigidus* Hall, 1858 (Name No. 1513) ;

(e) *Cyrtograptus* Lapworth, 1873 (gender : masculine), type-species, by monotypy, through *Cyrtograpsus* Carruthers, 1867, *Cyrtograptus murchisonii* Carruthers, 1867 (Name No. 1514) ;

(f) *Dicellograptus* Hopkinson, 1871 (gender : masculine), type-species, by designation by Gurley, 1896, *Didymograpsus* [sic] *elegans* Carruthers, 1868 (Name No. 1515) ;

(g) *Dichograptus* Hall, 1865 (gender : masculine), type-species, by designation by Gurley, 1896, *Dichograpsus* [sic] *sedgwickii* Salter, 1863 (Name No. 1516) ;

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(h) *Didymograptus* McCoy, (1851) (gender : masculine), type-species, by designation by Miller, 1889, *Graptolithus murchisoni* Beck, 1839 (Name No. 1517);

(i) *Diplograptus* McCoy, 1850 (gender : masculine), type-species, by designation by Gurley, 1896, *Prionotus pristis* Hisinger, 1837 (Name No. 1518);

(j) *Glossograptus* Emmons, 1855 (gender : masculine), type-species, by designation by Lapworth, 1873, *Glossograpsus* [sic] *ciliatus* Emmons, 1855 (Name No. 1519);

(k) *Nemagraptus* Emmons, 1855 (gender : masculine), type-species, by designation by Hall, 1868, *Nemagrapsus* [sic] *elegans* Emmons, 1855 (Name No. 1520);

(l) *Pleurograptus* Nicholson, 1867 (gender : masculine), type-species, by monotypy, *Cladograpsus linearis* Carruthers, 1858 (Name No. 1521);

(*m*) *Rhizograptus* Spencer, 1878 (gender : masculine), type-species, by monotypy, *Rhizograpsus* [sic] *bulbosus* Spencer, 1878 (Name No. 1522);

(n) *Staurograptus* Emmons, 1855 (gender : masculine), type-species, by monotypy, *Staurograpsus* [sic] *dichotomous* Emmons, 1855 (Name No. 1523);

(o) *Tetragraptus* Salter, 1863 (gender : masculine), type-species, by original designation, *Graptolithus bryonoides* Hall, 1858 (Name No. 1524);

(p) *Trigonograptus* Nicholson, 1869 (gender : masculine), type-species, by monotypy, *Trigonograpsus* [sic] *lanceolatus* Nicholson, 1869 (Name No. 1525);

(q) *Tetragrapsus* Rathbun, 1916 (gender : masculine), type-species, by monotypy, *Brachynotus* (*Heterograpsus*) *jouyi* Rathbun, 1893 (Crustacea, Decapoda) (Name No. 1526).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *granti* Spencer, 1878, as published in the binomen *Acanthograpsus* [sic] *granti* (type-genus of *Acanthograptus* Spencer, 1878) (Name No. 1870);

(b) *cyathiformis* Spencer, 1878, as published in the binomen *Calyptograpsus* [sic] *cyathiformis* (type-species of *Calyptograptus* Spencer, 1878) (Name No. 1871);

(c) *cometa* Geinitz, 1852, as published in the binomen *Diplograpsus* [sic] *cometa* (type-species of *Cephalograptus* Hopkinson, 1869) (Name No. 1872);

(d) *rigidus* Hall, 1858, as published in the binomen *Graptolithus rigidus* (type-species of *Clonograptus* Hall & Nicholson, 1873) (Name No. 1873);

(e) *murchisonii* Carruthers, 1867, as published in the binomen *Cyrtograpsus* [sic] *murchisonii* (type-species of *Cyrtograptus* Lapworth, 1873) (Name No. 1874);

(f) *elegans* Carruthers, 1868, as published in the binomen *Didymograpsus* [sic] *elegans* (type-species of *Dicellograptus* Hopkinson, 1871) (Name No. 1875);

(g) *sedgwickii* Salter, 1863, as published in the binomen *Dichograpsus* [sic] *sedgwickii* (type-species of *Dichograptus* Hall, 1865) (Name No. 1876);

(h) *murchisoni* Beck, 1839, as published in the binomen *Graptolithus murchisoni* (type-species of *Didymograptus* McCoy, (1851)) (Name No. 1877);

(i) *pristis* Hisinger, 1837, as published in the binomen *Prionotus pristis* (type-species of *Diplograptus* McCoy, 1850) (Name No. 1878);

(j) *ciliatus* Emmons, 1855, as published in the binomen *Glossograpsus* [sic] *ciliatus* (type-species of *Glossograptus* Emmons, 1855) (Name No. 1879);

(k) *gracilis* Hall, 1848, as published in the binomen *Graptolithus gracilis* (Name No. 1880);

(l) *linearis* Carruthers, 1858, as published in the binomen *Cladograpsus linearis* (type-species of *Pleurograptus* Nicholson, 1867) (Name No. 1881);

(m) *bulbosus* Spencer, 1878, as published in the binomen *Rhizograpsus* [sic] *bulbosus* (type-species of *Rhizograptus* Spencer, 1878) (Name No. 1882);

(n) *dichotomous* Emmons, 1855, as published in the binomen *Staurograpsus* [sic] *dichotomous* (type-species of *Staurograptus* Emmons, 1855) (Name No. 1883);

(o) *serra* Brongniart, 1828, as published in the binomen *Fucoides serra* (Name No. 1884);

(p) *lanceolatus* Nicholson, 1869, as published in the binomen *Trigonograpsus* [sic] *lanceolatus* (type-species of *Trigonograptus* Nicholson, 1869) (Name No. 1885);

(q) *jouyi* Rathbun, 1893, as published in the binomen *Brachynotus* (*Heterograpsus*) *jouyi* (type-species of *Tetragrapsus* Rathbun, 1916) (Crustacea, Decapoda) (Name No. 1886).

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) ACANTHOGRAPTIDAE Bulman, 1938 (type-genus *Acanthograptus* Spencer, 1878) (Name No. 338);

(b) CYRTOGRAPTIDAE Bouček, 1933 (type-genus *Cyrtograptus* Lapworth, 1873) (Name No. 339);

(c) DICHOGRAPTIDAE Lapworth, 1873 (type-genus *Dichograptus* Hall, 1865) (Name No. 340);

(d) DIPLOGRAPTIDAE Lapworth, 1873 (type-genus *Diplograptus* McCoy, 1850) (Name No. 341).

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Dichograpsus* Salter, 1861 (suppressed under the plenary powers in (1)(a) above) (Name No. 1599);

(b) *Dichograpsus* Salter, 1863 (a junior homonym of *Dichograpsus* Salter, 1861) (Name No. 1600);

(c) *Diplograpsus* McCoy (1851) (an invalid emendation of *Diplograpsis* McCoy, 1850) (Name No. 1601);

(d) the following names, ruled under the plenary powers in (1)(b) above to be incorrect original spellings:

(i) *Acanthograpsus* Spencer, 1878 (Name No. 1602);
(ii) *Calyptograpsus* Spencer, 1878 (Name No. 1603);
(iii) *Cephalograpsus* Hopkinson, 1869 (Name No. 1604);
(iv) *Clonograpsus* Hall & Nicholson, 1873 (Name No. 1605);
(v) *Dicellograpsus* Hopkinson, 1871 (Name No. 1606);
(vi) *Didymograpsus* McCoy, (1851) (Name No. 1607);
(vii) *Diplograpsis* McCoy, 1850 (Name No. 1608);
(viii) *Glossograpsus* Emmons, 1855 (Name No. 1609);
(ix) *Nemagrapsus* Emmons, 1855 (Name No. 1610);
(x) *Pleurograpsus* Nicholson, 1867 (Name No. 1611);
(xi) *Rhizograpsus* Spencer, 1878 (Name No. 1612);
(xii) *Staurograpsus* Emmons, 1855 (Name No. 1613);
(xiii) *Tetragrapsus* Salter, 1863 (Name No. 1614);
(xiv) *Trigonograpsus* Nicholson, 1869) (Name No. 1615).

THE HISTORY OF THE CASE (Z.N.(S.) 983)

The present case was first submitted to the Commission office in July 1955 by Dr. O. M. Bulman. After certain amendments Dr. Bulman's application was sent to the printer on 22 September 1960 and was published on 14 April 1961 in *Bull. zool. Nomencl.* **18** : 149–154. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to three palaeontological serials. No objection was received.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)4 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 151–154. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: Hering, Evans, Munroe, Holthuis, Mayr, Vokes, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Jaczewski, Tortonese, Bradley, Boschma, Mertens, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2): Brinck, Prantl.

Voting Papers not returned—two (2): Hemming, Obruchev.

It was discovered in preparing the Ruling on this Opinion that *Cyrtograpsus* Carruthers, 1867, had already been placed on the Official Index with the Name No. 478 by Direction 37.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Acanthograpsus Spencer, 1878, an invalid original spelling for *Acanthograptus* q.v.

ACANTHOGRAPTIDAE Bulman, 1838, *in* Schindewolf, *Handb. der Palaeozool.* **2D**(2) : 20–21

Acanthograptus Spencer, 1878, *Canad. Nat.* **8** : 461

bulbosus, Rhizograpsus [sic], Spencer, 1878, *Canad. Nat.* **8** : 460

Calyptograpsus Spencer, 1878, an invalid original spelling for *Calyptograptus* q.v.

Calyptograptus Spencer, 1878, *Canad. Nat.* **8** : 459

Cephalograpsus Hopkinson, 1869, an invalid spelling for *Cephalograptus* q.v.

Cephalograptus Hopkinson, 1869, *J. Quekett Micr. Club* **1** : 159

ciliatus, Glossograpsus [sic], Emmons, 1855, *Amer. Geol.* **1** : 108

Clonograpsus J. Hall & Nicholson, 1873, an invalid original spelling for *Clonograptus* q.v.

Clonograptus J. Hall & H. A. Nicholson, 1873, *in* Nicholson, *Ann. Mag. nat. Hist.* (4) **9** : 138

cometa, Diplograpsus, Geinitz, 1852, *Verstein. Grauwackenform.* **1** : 26

cyathiformis, Calyptograpsus [sic], Spencer, 1878, *Canad. Nat.* **8** : 459

CYRTOGRAPTIDAE Bouček, 1933, *Prace geolog.-palaeont. ustavu Karlovy University* : T.P., 11 (footnote)

Cyrtograptus Lapworth, 1873, *Geol. Mag.* **10** : Table 1

Dicellograpsus Hopkinson, 1871, an invalid original spelling for *Dicellograptus* q.v.

Dicellograptus Hopkinson, 1871, *Geol. Mag.* **7** : 20

Dichograpsus Salter, 1861, *Geologist* **4** : 74

Dichograpsus Salter, 1863, *Quart. J. geol. Soc.* **19** : 139

DICHOGRAPTIDAE Lapworth, 1873, *Geol. Mag.* **10** : table i

Dichograptus Hall, 1865, *Geological Survey of Canada, Canadian Organic Remains*, Decade 2

dichotomous, Staurograpsus [sic], Emmons, 1855, *Amer. Geol.* **1** : 109

Didymograpsus McCoy, (1851) an invalid original spelling for *Didymograptus* q.v.

Didymograptus McCoy, (1851), *in* Sedgwick & McCoy, *Brit. palaeoz. Rocks* (1) : 9

Diplograpsis McCoy, 1850, an invalid original spelling for *Diplograptus* q.v.

Diplograpsus McCoy, (1851), *in* Sedgwick & McCoy, *Brit. palaeoz. Rocks*(1) : 7

DIPLOGRAPTIDAE Lapworth, 1873, *Geol. Mag.* **10** : table i

Diplograptus McCoy, 1850, *Ann. Mag. nat. Hist.* (2) **6** : 270

elegans, Didymograpsus [sic], Carruthers, 1868, *Geol. Mag.* **5** : 129

Glossograpsus Emmons, 1855, an invalid original spelling for *Glossograptus* q.v.

Glossograptus Emmons, 1855, *Amer. Geol.* **1** : 108

gracilis, Graptolithus, Hall, 1848, *Pal. N.Y.* **1** : 274

granti, Acanthograpsus [sic], Spencer, 1878, *Canad. Nat.* **8** : 461

jouyi, Brachynotus (*Heterograpsus*), Rathbun, 1893, *Proc. U.S. nat. Mus.* **16** : 247

lanceolatus, Trigonograpsus [sic], Nicholson, 1869, *Ann. Mag. nat. Hist.* (4) **4** : 231

linearis, Cladograpsus, Carruthers, 1858, *Proc. roy. phys. Soc. Edinb.* **1** : 467

murchisoni, Graptolithus, Beck, 1839, *in* Murchison, *Silurian System* : 694

murchisonii, *Cyrtograpsus* [sic], Carruthers, 1867, *in* Murchison, *Siluria* (ed. 4), App. : 540
Nemagrapsus Emmons, 1855, an invalid original spelling for *Nemagraptus* q.v.
Nemagraptus Emmons, 1855, *Amer. Geol.* **1** : 109
Pleurograpsus Nicholson, 1867, an invalid original spelling for *Pleurograptus* q.v.
Pleurograptus Nicholson, 1867, *Geol. Mag.* **4** : 257
pristis, *Prionotus*, Hisinger, 1837, *Lethea Suecica*, suppl. : 114
Rhizograpsus Spencer, 1878, an invalid original spelling for *Rhizograptus* q.v.
Rhizograptus Spencer, 1878, *Canad. Nat.* **8** : 460
rigidus, *Graptolithus*, Hall, 1858, *Geol. Surv. Canada*, Rept. for 1857 : 121
sedgwickii, *Dichograpsus* [sic], Salter, 1863, *Quart. J. Geol. Soc.* **19** : 137
serra, *Fucoides*, Brongniart, 1828, *Hist. Veget. Foss.* **1** : 71
Staurograpsus Emmons, 1855, an invalid original spelling for *Staurograptus* q.v.
Staurograptus Emmons, 1855, *Amer. Geol.* **1** : 108
Tetragrapsus Rathbun, 1916, *Bull. U.S. nat. Mus.* **97** : 273
Tetragrapsus Salter, 1863, an invalid original spelling for *Tetragraptus* q.v.
Tetragraptus Salter, 1863, *Quart. J. geol. Soc.* **19** : 140
Trigonograpsus Nicholson, 1869, an invalid original spelling for *Trigonograptus* q.v.
Trigonograptus Nicholson, 1869, *Ann. Mag. nat. Hist.* (4) **4** : 231

The following are the original references for designations of type-species for genera concerned in the present Ruling :

For *Calyptograptus* Spencer, 1878 : Miller, 1889, *N. Amer. Geol. Pal.* : 175
For *Clonograptus* Hall & Nicholson, 1873 : Miller, 1889, *N. Amer. Geol. Pal.* : 179
For *Dicellograptus* Hopkinson, 1871 : Gurley, 1896, *J. Geol.* **4** : 70
For *Dichograptus* Hall, 1865 : Gurley, 1896, *J. Geol.* **4** : 64
For *Didymograptus* McCoy, (1851) : Miller, 1889, *N. Amer. Geol. Pal.* : 185
For *Diplograptus* McCoy, 1850 : Gurley, 1896, *J. Geol.* **4** : 78
For *Glossograptus* Emmons, 1855 : Lapworth, 1873, *Geol. Mag.* **10** : table i
For *Nemagraptus* Emmons, 1855 : Hall, 1868, *20th Rept. N.Y. State Cab. nat. Hist.* : 211

CERTIFICATE

We certify that the votes cast on Voting Paper (62)4 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 650.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
15 *May* 1962

OPINION 651

ANILIUS OKEN, 1816 (REPTILIA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Anilius* Oken, 1816, is hereby validated.

(2) The generic name *Anilius* Oken, 1816 (gender : masculine), type-species, by monotypy, *Anguis scytale* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1527.

(3) The specific name *scytale* Linnaeus, 1758, as published in the binomen *Anguis scytale* (type-species of *Anilius* Oken, 1816) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1887.

(4) The family-group name ANILIIDAE Stejneger, 1907 (type-genus *Anilius* Oken, 1816) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 342.

(5) The following generic names, published in a work rejected for nomenclatorial purposes, are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Berus* Oken, 1816 (Name No. 1616);
(b) *Discosomus* Oken, 1816 (Name No. 1617);
(c) *Herpeton* Oken, 1816 (Name No. 1618);
(d) *Propus* Oken, 1816 (Name No. 1619);
(c) *Pterodactylus* Oken, 1816 (Name No. 1620);
(f) *Petrodactylus* Oken, 1816 (Name No. 1621);
(g) *Scinci* Oken, 1816 (Name No. 1622);
(h) *Scincorum* Oken, 1816 (Name No. 1623);
(i) *Zyngnis* Oken, 1816 (Name No. 1624).

(6) The following specific names, published in a work rejected for nomenclatorial purposes, are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *cruciger* Oken, 1816, as published in the binomen *Bufo cruciger* (Name No. 733);
(b) *galliwasp* Oken, 1816, as published in the binomen *Scincus galliwasp* (Name No. 734);
(c) *graecus* Oken, 1816, as published in the binomen *Stellio graecus* (Name No. 735);
(d) *grisea* Oken, 1816, as published in the binomen *Lacerta grisea* (Name No. 736);
(e) *italicus* Oken, 1816, as published in the binomen *Stellio italicus* (Name No. 737);
(f) *lancifer* Oken, 1816, as published in the binomen *Trigonocephalus lancifer* (Name No. 738);
(g) *lepidopus* Oken, 1816, as published in the binomen *Bipes lepidopus* (Name No. 739);
(h) *ocellatus* Oken, 1816, as published in the binomen *Draco ocellatus* (Name

No. 740);
- (i) *oryzicola* Oken, 1816, as published in the binomen *Berus oryzicola* (Name No. 741);
- (j) *pelamys* Oken, 1816, as published in the binomen *Hydrophis pelamys* (Name No. 742);
- (k) *trimeresurus* Oken, 1816, as published in the combination *Coluber dipsas trimeresurus* (Name No. 743).

HISTORY OF THE CASE (Z.N.(S.) 1046)

The present case, prepared by Dr. Jay M. Savage, at the request of the Committee on Nomenclature of the American Society of Ichthyologists and Herpetologists, was first received in the Commission office in November 1955. Having been slightly amended to take account of decisions rendered by the Commission since 1955 the application was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 181–183. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. The application was supported by Professor Hobart M. Smith (*Bull. zool. Nomencl.* **19** : 64).

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)5 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 183. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows:

Affirmative Votes—twenty-two (22), received in the following order: Hering, Holthuis, Evans, Munroe, Mayr, Vokes, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Jaczewski, Tortonese, Bradley, Boschma, Mertens, Poll.

Negative Votes—one (1): Miller

On Leave of Absence—two (2): Brinck, Prantl.

Voting Papers not returned—two (2): Hemming, Obruchev.

It was discovered in preparing the Ruling of this Opinion that the names *Draco* and *Sirene* of Oken, 1816, had already been placed on the Official Index with the Name Nos. 786 and 810 respectively by Direction 56.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

ANILIIDAE Stejneger, 1907, *Bull. U.S. nat. Mus.* **58** : 225
Anilius Oken, 1816, *Lehrb. Naturgesch.* **3** : 284
Berus Oken, 1816, *Lehrb. Naturgesch.* **3** : 234
cruciger, Bufo, Oken, 1816, *Lehrb. Naturgesch.* **3** : 209
Discosomus Oken, 1816, *Lehrb. Naturgesch.* **3** : 310

Draco Oken, 1816, *Lehrb. Naturgesch.* **3** : 273
galliwasp, *Scincus*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 299
graecus, *Stellio*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 202
grisea, *Lacerta*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 303
Herpeton Oken, 1816, *Lehrb. Naturgesch.* **3** : 282
italicus, *Stellio*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 204
lancifer, *Trigonocephalus*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 270
lepidopus, *Bipes*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 286
ocellatus, *Draco*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 277
oryzicola, *Berus*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 248
pelamys, *Hydrophis*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 279
Petrodactylus Oken, 1816, *Lehrb. Naturgesch.* **3** : index
Propus Oken, 1816, *Lehrb. Naturgesch.* **3** : 287
Pterodactylus Oken, 1816, *Lehrb. Naturgesch.* **3** : 312
Scinci Oken, 1816, *Lehrb. Naturgesch.* **3** : 300
Scincorum Oken, 1816, *Lehrb. Naturgesch.* **3** : index
scytale, *Anguis*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 228
Sirene Oken, 1816, *Lehrb. Naturgesch.* **3** : 187
trimeresurus, *Coluber dipsas*, Oken, 1816, *Lehrb. Naturgesch.* **3** : 263
Zyngnis Oken, 1816, *Lehrb. Naturgesch.* **3** : 284

CERTIFICATE

We certify that the votes cast on Voting Paper (62)5 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 651.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
16 *May* 1962

OPINION 652

DASIOPS RONDANI, 1856 (INSECTA, DIPTERA); DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Dasiops* Rondani, 1856, made prior to the present Ruling are hereby set aside, and the nominal species *Lonchaea latifrons* Meigen, 1826, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Dasiops* Rondani, 1856 (gender: masculine), type-species, by designation under the plenary powers, *Lonchaea latifrons* Meigen, 1826 (Name No. 1528);

(b) *Chaetolonchaea* Czerny, 1934 (gender: feminine), type-species, by original designation, *Lonchaea dasyops* Meigen, 1826 (Name No. 1529);

(c) *Lonchaea* Fallén, 1820 (gender: feminine), type-species, by designation by Westwood, 1840, *Musca chorea* Fabricius, 1781 (Name No. 1530).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *latifrons* Meigen, 1826, as published in the binomen *Lonchaea latifrons* (type-species of *Dasiops* Rondani, 1856) (Name No. 1888);

(b) *dasyops* Meigen, 1826, as published in the binomen *Lonchaea dasyops* (type-species of *Chaetolonchaea* Czerny, 1934) (Name No. 1889);

(c) *chorea* Fabricius, 1781, as published in the binomen *Musca chorea* (type-species of *Lonchaea* Fallén, 1820) (Name No. 1890).

(4) The family-group name LONCHAEIDAE Loew, 1862 (type-genus *Lonchaea* Fallén, 1820) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 343.

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Dasiopa* Coquillet, 1910 (an incorrect spelling for *Dasiops* Rondani, 1856) (Name No. 1625);

(b) *Dasyops* Scudder, 1882 (an incorrect spelling for *Dasiops* Rondani, 1856) (Name No. 1626);

(c) *Lonchea* Rondani, 1856 (an incorrect spelling for *Lonchaea* Fallén, 1820) (Name No. 1627).

(6) The specific name *dasiops* Rondani, 1856, as published in the binomen *Lonchea* [sic] *dasiops* (an incorrect spelling for *dasyops*, *Lonchaea*, Meigen, 1826) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 744.

HISTORY OF THE CASE (Z.N.(S.) 1240)

The present case was first submitted to the office of the Commission by Dr. Günter Morge in July 1957. After additional information had been obtained an application was prepared by the Assistant Secretary to the Commission, Dr. W. E. China, which was sent to the printer on 8 December 1960 and published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 189–194. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. No objection was received.

On 18 September 1961, Dr. Morge wrote to the Assistant Secretary pointing out that a mistake had been made in the application in attributing the family name LONCHAEIDAE to Becker, 1895. This family name was first published by Loew in 1862. Commissioners were informed of this correction at the time of voting.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)6 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 193–194. At the close of the Voting Period on 7 May 1962 the state of the Voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Holthuis, Evans, Munroe, Mayr, Vokes, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Tortonese, Bradley, Jaczewski, Boschma, Mertens, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2) : Brinck, Prantl.

Voting Papers not returned—two (2) : Hemming, Obruchev.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Chaetolonchaea Czerny, 1934, *in* Lindner, *Flieg. palaearkt. Reg.* 43 : 26
chorea, Musca, Fabricius, 1781, *Spec. Ins.* **2** : 444
Dasiopa Coquillet, 1910, *Proc. U.S. nat. Mus.* **37** : 531
Dasiops Rondani, 1856, *Dipt. ital. Prodr.* **1** : 120
dasiops, Lonchea [sic], Rondani, 1856, *Dipt. ital. Prodr.* **1** : 120
Dasyops Scudder, 1882, *Nomencl. Zool.*
dasyops, Lonchaea, Meigen, 1826, *Syst. Beschr. Zweifl. Insekt.* **5** : 308
latifrons, Lonchaea, Meigen, 1826, *Syst. Beschr. Zweifl. Insekt.* **5** : 308
Lonchaea Fallén, 1820, *Ortalides Sveciae* (3) : 25
LONCHAEIDAE Loew, 1862, *Die europ. Bohrfliegen* (Trypetidae) : 7
Lonchea Rondani, 1856, *Dipt. ital. Prodr.* **1** : 120

The following is the original references for the designation of a type-species for a genus concerned in the present Ruling :

For *Lonchaea* Fallén, 1820 : Westwood, 1840, *Introd. mod. Classif. Ins.*, Gen. Synopsis : 150

CERTIFICATE

We certify that the votes cast on Voting Paper (62)6 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 652.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
16 *May* 1962

COMMENT ON THE PROPOSED DESIGNATION OF A TYPE-SPECIES *BOA* LINNAEUS, 1758 (REPTILIA). Z.N.(S.) 1188

(see volume 19, pages 205–207)

By J. Roze (*Universidad Central de Venezuela, Caracas, Venezuela*)

After having read Dr. H. M. Smith's application in which he proposes several changes concerning the genera *Boa* and *Constrictor*, I must state that I am against these proposals, for the following reasons :

1. These conclusions are based on no well-defined facts, but merely on interpretations of some facts subject to different possibilities !

2. Forcart's (1951) publication provided a simple and the only possible interpretation in accordance with the International Code of Zoological Nomenclature, showing clearly that Fitzinger (1843, p. 24) was the first to designate explicitly *Boa constrictor* Linnaeus as type of *Boa* Linnaeus ; Forcart's (1951, p. 138) designation of *C. formosissimus* as type of *Constrictor* Laurenti simpifies again the situation, leaving no nomenclatural difficulties in recognizing the two well-known South American genera :

(a) *Boa* Linnaeus, 1758 (type : *B. constrictor* designated by Fitzinger, 1843) which includes 7 subspecies of the only species, *B. constrictor* ;

(b) *Corallus* Daudin, 1803 (type : *C. obtusirostris* Daudin, by monotypy (=*Boa hortulana* Linnaeus) which includes *C. hortulanus*, *C. caninus* and *C. annulatus*.

3. This disposal of Forcart's has been accepted and used by a great majority of herpetologists working on South American snakes (Peters, 1960 ; Roze, 1961, etc.).

Against this simple situation, Smith proposes to make several changes to adjust it to his interpretation.

OPINION 653

NEMOURA LATREILLE, 1796 (INSECTA, PLECOPTERA); DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Nemoura* Latreille, 1796, made prior to the present Ruling are hereby set aside, and the nominal species *Perla cinerea* Retzius, 1783, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Nemoura* Latreille, 1796 (gender: feminine), type-species, by designation under the plenary powers, *Perla cinerea* Retzius, 1783 (Name No. 1531);

(b) *Taeniopteryx* Pictet, 1842 (gender: feminine), type-species, by original designation, *Phryganea nebulosa* Linnaeus, 1758 (Name No. 1532).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *cinerea* Retzius, 1783, as published in the binomen *Perla cinerea* (type-species of *Nemoura* Latreille, 1796) (Name No. 1891);

(b) *nebulosa* Linnaeus, 1758, as published in the binomen *Phryganea nebulosa* (type-species of *Taeniopteryx* Pictet, 1842) (Name No. 1892).

(4) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) NEMOURIDAE Newman, 1853 (type-genus *Nemoura* Latreille, 1796) (Name No. 344);

(b) TAENIOPTERYGIDAE Klapálek, 1905 (type-genus *Taeniopteryx* Pictet, 1842) (Name No. 345).

HISTORY OF THE CASE (Z.N.(S.) 1452)

The present case was submitted to the office of the Commission by Mr. D. E. Kimmins in February 1960. It was sent to the printer on 27 June 1960 and published on 14 April 1961 in *Bull. zool. Nomencl.* **18** : 155–156. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. Per Brinck, Dr. W. E. Ricker (*Bull. zool. Nomencl.* **18** : 257) and Dr. Carlo Consiglio.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)7 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 156. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order:

Hering, Holthuis, Evans, Munroe, Mayr, Vokes, Miller, Lemche, Riley, Jaczewski, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Tortonese, Bradley, Boschma, Mertens, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2): Brinck, Prantl.

Voting Papers not returned—two (2): Hemming, Obruchev.

Original References

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion:

cinerea, *Perla*, Retzius, 1783, *in* De Geer, *Gen. Spec. Ins.* : 60
nebulosa, *Phryganea*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 549
Nemoura Latreille, 1796, *Précis Caract. Ins.* : 101
NEMOURIDAE Newman, 1853, *Zoologist* **11** : App. cxc
TAENIOPTERYGIDAE Klapálek, 1905, *Ceské společ. Ent. Casopis* **2** : 30
Taeniopteryx Pictet, 1842, *Hist. nat. Ins. Nèvr.*, Perlides : 335

CERTIFICATE

We certify that the votes cast on Voting Paper (62)7 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 653.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
17 *May* 1962

OPINION 654

SILO CURTIS, 1833 (INSECTA, TRICHOPTERA); VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Silo* Curtis, 1830, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The generic name *Silo* Curtis, 1833 (gender : masculine), type-species, by designation by Westwood, 1839, *Phryganea pallipes* Fabricius, 1781, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1533.

(3) The specific name *pallipes* Fabricius, 1781, as published in the binomen *Phryganea pallipes* (type-species of *Silo* Curtis, 1833) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1893.

(4) The generic name *Silo* Curtis, 1830 (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1628.

HISTORY OF THE CASE (Z.N.(S.) 1455)

The present case was submitted to the office of the Commission in March 1960 by Mr. D. E. Kimmins. It was sent to the printer on 27 June 1960 and was published on 14 April 1961 in *Bull. zool. Nomencl.* **18** : 157–158. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. Mr. Kimmins slightly amended his application by a note published in *Bull. zool. Nomencl.* **18** : 350. The proposals were supported by Dr. H. H. Ross (*Bull. zool. Nomencl.* **18** : 350) and Dr. Glen B. Wiggins.

DECISION OF THE COMMISSION

On 7 February 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)8 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 158. At the close of the prescribed Voting Period on 7 May 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Holthuis, Evans, Munroe, Mayr, Vokes, Miller, Lemche, Riley, Kühnelt, Key, Bonnet, Uchida, Stoll, Borchsenius, Alvarado, do Amaral, Tortonese, Bradley, Jaczewski, Boschma, Mertens, Poll.

Negative Votes—none (0).

On Leave of Absence—two (2) : Brinck, Prantl.

Voting Papers not returned—two (2) : Hemming, Obruchev.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

pallipes, Phryganea, Fabricius, 1781, *Spec. Ins.* **1** : 388
Silo Curtis, 1830, *Guide Arrang. Brit. Ins.* (ed. 1) : 136
Silo Curtis, 1833, *Ent. Magazine* **1** : 188–189

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling :

For *Silo* Curtis, 1833 : Westwood, 1839, *Introd. mod. Classif. Ins.,* Gen. Synopsis : 50

CERTIFICATE

WE certify that the votes cast on Voting Paper (62)8 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 654.

N. D. RILEY
Secretary

W. E. CHINA
Assistant Secretary

International Commission on Zoological Nomenclature
London
17 *May* 1962

AMYDA FITZINGER, 1843 (REPTILIA, TESTUDINES): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 229

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois*) and Philip W. Smith (*Natural History Survey, Urbana*)

The proper generic name for the Three-clawed Softshell turtles of the Americas and of the Eastern Hemisphere has been debated for 50 or 60 years, the chief competitors being *Amyda* and *Trionyx*. A related Indian genus of Hinged Softshells has similarly been known since 1931 sometimes as *Trionyx*, sometimes *Lissemys*. A third genus of Malayan softshells, commonly known by the generic name *Dogania*, is also involved in the confusion of names. An excellent history of the nomenclatural confusion is given by Stejneger, one of the principal participants (1944, *Bull. Mus. comp. Zool.* **94** : 5–8). His conclusions were not universally accepted, however, and a number of dissenting and confirmatory discussions followed. Conant and Goin (1948, *Occ. Papers, Mus. Zool. Univ. Michigan*, 510 : 11–16) re-assayed the problem and submitted the case to the Commission first in 1946. Correspondence with Mr. Francis Hemming, then Secretary of the Commission, on seemingly endless ramifications of the case gradually flagged, and the Conant-Goin proposal accordingly was never completed to the satisfaction of the editors of the *Bulletin of Zoological Nomenclature*.

In 1958, Dr. Robert Webb, then at the University of Kansas and engaged in a study of American softshells, requested the Committee on Nomenclature, of which the senior author was then chairman, of the American Society of Ichthyologists and Herpetologists, to review the case. The Conant-Goin proposal was then exhumed but again the editorial task proved overwhelming until, in recent months, it became apparent that appearance of the revised (1961) Code would be an essential prelude to a satisfactory presentation of the case.

Since much of the original Conant-Goin proposal is now superseded, Drs. Conant, Goin and Webb, and the Assistant Secretary to the International Commission, Dr. W. E. China, have recommended the formulation of a new proposal. I am indebted to all these gentlemen, and to Mr. Richard V. Melville, for their assistance with seemingly controversial points and in many other ways.

1. The earliest usage of *Amyda*, as pointed out by Conant and Goin (1948 : 12) occurs in Geoffroy St. Hilaire, July 1809 (*Nouv. Bull. Sci. Philom. Paris* **22** : 363) who includes the name in the synonymy of *Trionyx javanicus*, in the combination "*Amyda Javanicus*, par. M. Schweigger, dans un manuscrit communique a l'Institut". Geoffroy republished the same information in August of 1809 (*Ann. Mus. Hist. Nat. Paris* **14** : 15).

The 1961 Code explicitly (Art. 11d) excludes from availability any name first published as a synonym, as of that date; therefore only by use of the

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plenary powers of the Commission could *Amyda* be rendered available as of Geoffroy, 1809 ; it is a *nomen nudum* as of that date and work. Unless the plenary powers are invoked to validate *Amyda* Geoffroy, 1809, all discussions of its type and author (Stejneger, 1944, *Bull. Mus. comp. Zool.* **94** : 7, for example, attributing *Amyda* to Schweigger *in* Geoffroy) are inconsequential. If *Amyda* Geoffroy were, however, to be validated, its type, unless otherwise fixed by the Commission, would be *Amyda javanica* Geoffroy since that was the only specific name associated with the name *Amyda*.

2. In the same works by Geoffroy in 1809, and on the same pages, the nominal genus *Trionyx* was first proposed, but this was the name *accepted* by Geoffroy, whereas *Amyda* was merely a cited synonym.

In both accounts Geoffroy included eight nominal species in his new genus *Trionyx*, but none can be construed as having been designated in any way as type of the genus although in the August 1809 work, in the explanation of the figures of *aegyptiacus* (p. 20), it is stated that " Le trionyx d'Égypte, représenté planche I, *vue en dessous et de côté*, nous donnant une idée exacte du port et des caractères génériques des trionyx . . . ". The 1961 Code (p. 63) explicitly states, however, that in cases like the example "*A-us b-us* is a typical example of the genus *A-us* ", certainly including the *Trionyx* situation, there is no type-designation. This is precisely what Stejneger concluded in 1905 (*Science*, n.s. **21** : 228–229) and in 1944 (*Bull. Mus. comp. Zool.* **94** : 6–7) ; Wermuth and Mertens (1961, *Schildkröten, Krokodile, Brüchenechsen :* xxiii) agreed that Stejneger's analysis actually was correct, but felt impelled to follow what they regarded as the majority view, namely that Geoffroy *did* designate *aegyptiacus* the type. Schmidt (1953, *Check List N. Amer. Amphs. Repts.* : 108) vehemently stated the case for the latter view, opining that Geoffroy's statement was sufficient for type designation and that Stejneger was motivated not by concern for a stable nomenclature but " by his known personal animus against Boulenger ". Loveridge and Williams (1957, *Bull. Mus. comp. Zool.* **115** : 422–423) also follow the Schmidt view, " believing that Geoffroy, when citing *T. aegyptiacus* as giving an *exact idea* of the habitus and generic characters of *Trionyx*, was consciously and with full intent designating the type of that genus. Admittedly the word ' type ' was not used by Geoffroy, but we must point out that no species except the genotype can give an *exact idea* of the habitus and generic characters of a genus, and that this is the sole function and meaning of a genotype ". Malcolm Smith (1931, *Fauna British India, Rept. Amph.*, vol. 1, Loricata, Testudines : 154, 156–7, 165) is another influential author of the same mind.

Whatever Stejneger's motivation may have been, and despite the arguments of Smith, Schmidt, Loveridge and Williams, the 1961 Code leaves no doubt that Stejneger's conclusion is now to be considered correct and that only by exercise of the plenary powers of the Commission can a designation subsequent to Geoffroy be set aside.

3. The next event was the usage of *Amyda* in 1811 by Oppel (1811, *Ordn. Fam. Gatt. Rept.* : 7). The name was mentioned only in an introductory section, however, and was not accepted in the text or even listed there as a synonym. The Oppel citation can scarcely be regarded as validating *Amyda*

since the name was not there accepted—its usage is certainly of no greater significance than as a synonym, if even that. The name can scarcely be considered available as of the 1961 Code, under the article (11d) that rules out *Amyda* Geoffroy.

4. Next in chronological order is the use of *Amyda* by Oken in 1816 (*Lehrb. Nat.* **3**(2) : 348). Several species were assigned to the genus, none designated as type. Oken's work has been ruled as unavailable for the purposes of zoological nomenclature in Opinion 417 (1956) ; only by exercise of the plenary powers could *Amyda* be validated as of Oken. It is noteworthy that Savage (1961, *Bull. zool. Nomencl.* **18** : 183) was not of the opinion that the name need be conserved as of Oken.

5. In the same work Oken (1816 : 348) recognized *Trionyx*, a monotypic genus by his treatment, including only the species *granosa*. *Testudo granosa* Schoepff, 1801, is a senior synonym of *Trionyx coromandelicus* Geoffroy, 1809, and was cited in the synonymy of *coromandelicus* by Geoffroy. The action is fortunately immaterial since Oken's work has been declared null and void (see preceding paragraph).

6. In 1828, as pointed out solely by Loveridge and Williams (*loc. cit.*), Bory de St. Vincent (*Résumé d'Erpétologie ou d'Histoire naturelle des Reptiles* : 77) states that Geoffroy fixed *aegyptiacus* as type of *Trionyx* : " C'est au célèbre professeur Geoffroy de Saint-Hilaire que l'on doit l'établissement de ce genre dont le type fut une très singulière tortue du Nil que nous avons fait représenter dans notre planche 6e ". The name *Trionyx aegyptiacus* appears on the legend for the plate cited. Article 69a(ii) of the 1961 Code clearly requires that Bory de St. Vincent's statement be accepted as a type-designation for *Trionyx* : " In the absence of a prior valid type-designation for a nominal genus, an author is considered to have designated one of the originally included nominal species as type-species, if he states that it is the type (or type-species) for whatever reason, right or wrong, and if it is clear that he himself accepts it as the type-species." Unquestionably these provisions are met by Bory de St. Vincent, who thereby becomes the first subsequently to designate the type-species of *Trionyx*.

7. So far as we can determine, the first acceptable proposal of *Amyda* occurred in 1835 (Fitzinger, *Ann. Wiener Mus.* **1** : 110, 120, 127). Three species were included (*subplanus*, *muticus*, *euphraticus*), none designated as type.

8. In 1843 Fitzinger (*Syst. Rept.* : 30) explicitly designated *Trionyx subplanus* Geoffroy, 1809, type of *Amyda*. Since this species was cited by Oken it is eligible for fixation as type of his *Amyda* if the name were to be validated as of him, as well as for Fitzinger's *Amyda*.

9. In the same work Fitzinger (*loc. cit.*) also explicitly designated " *Trionyx granosus* Schweigg " type of *Trionyx*. Since " *Testudo granosa* Schoepff " is cited in the synonymy of *Trionyx coromandelicus* by Geoffroy, 1809, it thus can be admitted as eligible for selection as type of the genus *Trionyx*. In reality, however, this designation is of course invalid since Bory de St. Vincent had already selected a type for the genus. Nevertheless since the latter designation has been generally overlooked, Fitzinger (1843) has been universally

regarded as the first designator of the type for *Trionyx* by those who rejected an original designation by Geoffroy.

10. If Fitzinger's (1843) type designation were to be accepted for both *Amyda* and *Trionyx*, both names would be removed from the genus including most species of softshells. The next available name as pointed out by Loveridge and Williams (1957 : 420), is *Aspidonectes* of Wagler (1830, *Natürliches System der Amphibien* : 134). Several species were included, none designated as type, but Fitzinger (1843 : 30) subsequently designated one of the included species, *Trionyx aegyptiacus* Geoffroy, as type, referring to it by the name of "*Aspidonectes aegyptiacus* Wagler ".

11. Since, as has been shown possible by Boulenger (1889, *Cat. Chelonians British Mus.* : 245–246), Loveridge and Williams (*op. cit.* : 417) and Malcolm Smith (*op. cit.* : 165–166), the American section of softshells might be regarded in the future as generically distinct, the earliest generic name having an American species as type is of importance. It is, as pointed out by Webb (1962, *Misc. Publ. Univ. Kans. Mus. Nat. Hist.* **13** : 483, 491), either *Apalone* or *Mesodeca*, both proposed in 1832 by Rafinesque (*Atlantic Journ.* **1** : 64), with their type-species respectively *Apalone hudsonica* (=*Trionyx spiniferus* Lesueur) and *Mesodeca bartrami* (=*Trionyx ferox* Schneider), both by monotypy. Neither name has been selected over the other ; in fact neither has ever been used since originally proposed, so far as we are aware. Furthermore, both names were based in part or entirely on a description by Bartram in his *Travels* (Webb, *loc. cit.*), a work placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature (Opinion 447, 1957), and, for that reason, were not considered by Webb (*in litt.*) to be the earliest names available for their type-species (*Platypeltis* instead of *Mesodeca*, and *Callinia* instead of *Apalone*, Webb, *op. cit.* : 485, 488). Finally, if the *nomen oblitum* rule were observed, neither of Rafinesque's names could be used in the future, whether otherwise available or not. Accordingly the earliest name admissible under the 1961 Code, with an American species as type, is *Platypeltis* Fitzinger, 1835 (*Ann. Wiener Mus. Naturgeschichte* **1** : 109, 120, 127), type *Testudo ferox* Schneider by subsequent designation in Fitzinger, 1843 (*op. cit.* : 30).

12. It has long been common practice to place the some 22 forms involved in the present nomenclatural confusion in three genera. As reviewed by Wermuth and Mertens (*op. cit.*) the Malayan Softshells (*Dogania* Gray, 1844) include one species, *subplana* (Geoffroy, 1809) ; the Indian Hinged Softshells (*Lissemys*, M. Smith, 1931) include one species, *punctata* (Lacépède, 1788), with three subspecies, *punctata* (Lacépède, 1788), *granosa* (Schoepff, 1801) with *coromandelicus* Geoffroy, 1809 a junior synonym, and *scutata* (Peters, 1868) ; and the Three-clawed Softshells (*Trionyx* Geoffroy, 1809) of Africa, the Near East, Asia, North America and Mexico, include some 18 forms, among them *triunguis* (Forskål, 1775) of which *aegyptiacus* Geoffroy, 1809 is a junior synonym, and *cartilaginea* (Boddaert, 1770) of which *javanicus* Geoffroy, 1809, is a junior synonym.

There is some variation among herpetologists in generic allocation of these species, the most common one being the amalgamation of the Malayan and the Three-clawed Softshells (*e.g.* Loveridge and Williams, *op cit.*). The account presented by the latter authors provides for the clear inference that if *Dogania* is recognised the Three-clawed Softshells with equal validity should be partitioned into as many as five genera, one of which would be composed of all the American species. There is no disagreement on segregation generically of the Indian Hinged Softshells.

13. The influence of each of the several interpretations of type-fixation for the three commonly recognised genera of Softshells involved in the present context upon the nomenclature of these genera is depicted in Table 1, using vernacular names for identification of the taxa defined in the preceding section 12. The first nomenclatural combination is unquestionably the most popular at the present time, although the automatic provisions of the 1961 Code do not justify use of *Dogania*. The Stejnegerian analysis, certainly correct as of the Code in force when he wrote, is the second combination ; this analysis was valid at the time of, and was followed in, the synoptic checklist of turtles by Mertens and Wermuth in 1955 (*Zool. Jarhb., Syst.*, **83** : 323–440). E. R. Dunn, Francis Hemming, Conant and Goin all subscribed to the validity of this view. The fourth nomenclatural combination is the one that would now be in use by adoption of the automatic provisions of the 1961 Code.

In reality, *Amyda* has never been used in a strict sense for *Dogania* (combination 3 and 4 of Table 1), although the single species of *Dogania* has frequently been lumped with the Three-clawed Softshells which in turn often have been termed *Amyda*. Likewise *Aspidonectes* has not been used at all for more than 25 years, and seldom for 25 years before that, although both *Amyda* and *Trionyx* have been used frequently for the Three-clawed softshells. *Lissemys* has been used frequently since it was proposed in 1931 for the Indian Hinged Softshells, but occasionally *Trionyx* (*e.g.* Mertens and Wermuth, 1955) has been adopted.

The question of a proper name for all three genera centers primarily upon the name for the Three-clawed Softshells. A definite decision on that genus would likely eliminate all question relative to the other genera. All considerations of the " proper " name for the Three-clawed Softshells hinge upon maintenance of the greatest possible stability through recourse to the plenary powers, for obviously application of the automatic provisions would be highly disturbing to current and readily understood practice.

14. In this framework of thought, the " proper " and least controversial name-selection for the Three-clawed Softshells should be considered. The literature strongly indicates that Old World herpetologists would overwhelmingly favour use of *Trionyx*. In Loveridge and Williams (*op. cit.* : 423–426) only five references (1919–1955) to the single African species use *Amyda*, whereas *Trionyx* is used by 42 references between 1900 and 1955, and 59 before 1900. In the literature on Indian species Malcolm Smith (*op. cit.* : 167–179) shows that, until 1931, not a single reference to any of the eight species in that region had used *Amyda* for the genus ! The literature on Chinese species (Pope, 1935, *Reptiles of China* : 59–60) reveals only 7 of 45 references to that date for one species, and none of 3 references for the other species, using the generic name *Amyda*.

So far as American herpetologists are concerned, we are not aware that either name is now strongly favoured over the other, although *Trionyx* is more frequently encountered. *Trionyx* and *Amyda* have been used so completely interchangeably, with *Aspidonectes* and *Platypeltis* thrown in occasionally, that it makes little difference which one becomes fixed. The favor *Amyda* does receive is based, we think, to a significant degree upon an unwarranted " feeling " of provincialism—*Amyda* seems more distinctively American whereas *Trionyx* is seemingly a more cosmopolitan grouping. Be that as it may, in Stejneger's monograph of American *Amyda* (*op. cit.*, 1944), for the species *mutica* 27 references use *Trionyx* (1827–1923), 63 *Amyda* (1857–1942) ; for *ferox*, 30 use *Trionyx* (1812–1939), 20 *Amyda* (1816–1934), 8 *Platypeltis* (1843–1915), 8 *Aspidonectes* (1875–1935) ; for *spinifera*, 16 use *Trionyx* (1827–1913), 44 *Aspidonectes* (1857–1909), 5 *Platypeltis* (1893–1918), 66 *Amyda* (1911–1942) ; and for *emoryi* 7 use *Trionyx* (1889–1940), 8 *Aspidonectes* (1857–1910), 21 *Amyda* (1917–1939), 4 *Platypeltis* (1893–1928). Collectively this gives a total of 17 usages of *Platypeltis*, 60 of *Aspidonectes*, 80 of *Trionyx*, and 170 of *Amyda*. Since 1942, when Stejneger wrote, there have been very few usages of *Platypeltis* and *Aspidonectes*.

Recent issues of the *Zoological Record* record always at least twice and sometimes as many as three times the usages of *Trionyx* as of *Amyda*, with the proportion holding equally well for herpetologists in both hemispheres.

15. All views considered, it appears least disturbing to existing custom to fix *Trionyx* for the Three-clawed Softshells, *Dogania* for the Malayan softshells, and *Lissemys* for the Indian Hinged Softshells. The automatic provisions of the 1961 Code already fix *Trionyx* as desired and leave *Lissemys* free for the Indian Hinged Softshells ; only the name *Dogania* requires invocation of the plenary powers for its fixation, by elimination of *Amyda*. Accordingly the International Commission on Zoological Nomenclature is requested :

(1) to use its plenary powers to suppress the generic name *Amyda* Fitzinger, 1843, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

  (a) *Lissemys* Smith, 1931 (gender : feminine), type-species by original designation *Testudo granosa* Schoepff, 1801 ;

  (b) *Trionyx* Geoffroy, 1809 (gender : masculine), type-species by designation by Bory St. Vincent, 1828, *Trionyx aegyptiacus* Geoffroy, 1809 ;

  (c) *Dogania* Gray, 1844 (gender : feminine), type-species by monotypy *Trionyx subplanus* Geoffroy, 1809 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

  (a) *granosa* Schoepff, 1801, as published in the binomen *Testudo granosa* (type-species of *Lissemys* Smith, 1931) ;

  (b) *triunguis* Forskål, 1775, as published in the binomen *Testudo triunguis* [oldest available name for the type-species of *Trionyx* Geoffroy, 1809] ;

  (c) *subplanus* Geoffroy, 1809, as published in the binomen *Trionyx* *subplanus* (type-species of *Dogania* Gray, 1844) ; and

(4) to place the generic name *Amyda* Fitzinger, 1836, as suppressed under the plenary powers in (1)(a) above, on the Official Index of Rejected and Invalid Generic Names in Zoology.

Table 1.—*Nomenclature of three genera of softshells according to different type-fixations hitherto proposed*

	Type-Fixation of		Indian Hinged Softshells	Three-clawed Softshells	Malayan Softshells**
	Amyda as of	*Trionyx* as of			
1	Geoffroy (*javanica*)	Geoffroy* (*aegyptiacus*)	*Lissemys*	*Trionyx* (*Amyda* a synonym)	*Dogania*
2	Geoffroy (*javanica*)	Fitzinger (*granosus*)	*Trionyx*	*Amyda*	*Dogania*
3	Fitzinger (*subplana*)	Fitzinger (*granosus*)	*Trionyx*	*Aspidonectes*	*Amyda*
4	Fitzinger (*subplana*)	Geoffroy* (*aegyptiacus*)	*Lissemys*	*Trionyx*	*Amyda*

* Or Bory de Vincent ; the end result is the same in either case.

** If the Malayan and Three-clawed Softshells were regarded as congeneric, in every case the name given for the latter would have senior status except, of course, in the third case if *Amyda* were regarded as valid as of some date prior to that of *Aspidonectes* (1830).

APHID NAMES OF RAFINESQUE : PROPOSED SUPPRESSION UNDER THE PLENARY POWERS (INSECTA, HEMIPTERA, APHIDIDAE). Z.N.(S.) 327

By F. C. Hottes (*Grand Junction, Colorado, U.S.A.*)

In the early part of the nineteenth century, C. S. Rafinesque published two papers (1817 and 1818) in which he described thirty-six new species and three subgenera belonging to the Family Aphididae. Between 1818 and 1910 when Wilson published a paper calling attention to the genera and species described by Rafinesque, no attempt seems to have been made by Aphid workers to recognize or place in synonymy the forms described by Rafinesque, although his papers were familiar to Aphid taxonomists. Hottes in 1931 again called attention to the papers of Rafinesque and attempted, as had Wilson in 1910, to recognize and place in synonymy species which he thought could be recognized. In doing this Hottes did not always follow the synonymy suggested by Wilson.

2. Börner in 1930 recognized the subgenera described by Rafinesque as genera, fixed the type for the genus *Dactynotus*, and stated that the types for the other two genera were designated by Wilson. With this later statement I do not agree, but types are cited by Börner in his 1930 paper.

3. Since 1931 several workers, notably Börner, Hille Ris Lambers, and Hottes, have made use of Rafinesque's genera, but not without some confusion because Wilson and Hottes did not always agree as to the synonymy of the species selected as types for the genera. Apparently no one had made use of the specific names published by Rafinesque except in connection with the genera for which they were fixed as type.

4. Several factors may account for the failure of Aphid workers to make use of the names proposed by Rafinesque. The descriptions are very meagre and poor when viewed from the modern standpoint. It may be stated, however, that the descriptions are no more brief and no poorer than the original descriptions of many species recognized today. The fear that his species were not described as binominals may have kept some from making use of his names. To the objections just mentioned one may also add the personal characteristics and idiosyncrasies of Rafinesque the man, to which some workers may have taken exception. To these valid and invalid objections the factor of time has also to be added, making it more difficult for workers to give up long established names such as *Myzus* and *Macrosiphum*, *ambrosiae* and *rudbeckiae*, etc., for those proposed by Rafinesque.

5. Consideration of the species and genera of Aphididae proposed by Rafinesque.

1. *Aphis Diervilla-lutea*. This species has not been recognized.
2. *Aphis Aralia-hispida*. This species has not been placed in synonymy.
3. *Aphis Aquilegia-canadensis*. This species was not recognized by Wilson. Hottes thought it probable that it was the same as *Myzus essigi* Gillette & Palmer.

4. *Aphis Hieracium-venosum.* Wilson thought this species might be the same as *Aphis annulipes* Raf. of which *Macrosiphum rudbeckiae* (Fitch) was placed as a synonym. Hottes did not follow Wilson in this case because Fitch's species has never been reported from the host mentioned by Rafinesque. Hottes thought this species a synonym of *Macrosiphum hieracii* (Kaltenbach) but followed Theobald, 1913, who had placed this species in the genus *Myzus*. At that time Hottes thought Kaltenbach's species a synonym of Schrank's *Aphis hieracii* of which it is a homonym. In this he was not correct. Mason, 1940, placed the *hieracii* of Kaltenbach in the genus *Myzus* but remarked that it was not typical of the genus. Kaltenbach's *hieracii* is a homonym of the species described by Schrank. Mason lists *Aphis ribicola* Kalt. as a synonym of his *hieracii*. *Nasonovia ribisnigri* Mosley, 1841 is the oldest name now recognised for this species.
5. *Aphis Melampyrum-latifolium.* This species has not been recognized.
6. *Aphis Pteris-aquilinoides.* Wilson, 1910, thought this similar to *Mastopoda pteridis* Oestlund. Hottes thought *Macrosiphum ptericolens* Patch a more likely synonym.
7. *Aphis Campanula-riparia.* Wilson, 1910, thought this synonymous with *Aphis hieracium-venosum* Raf.
8. *Aphis Chenophyllum-canadense.* This species has not been recognized.
9. *Aphis erigeron-philadelphicum.* Hottes, 1931, recognized this species as a synonym of *Macrosiphum erigeronensis* (Thomas).
10. *Aphis verticolor.* Wilson and Hottes considered this species a synonym of *Aphis hieracium-venosum* Raf.
11. *Aphis furcipes.* Hottes thought this species to be synonym of *Myzus persicae* (Sulzer).
12. *Aphis fusciclava.* This species is not an aphid because it was described with clavated antennae.
13. *Aphis rosa-suaveolens.* Wilson lists the following species as synonyms: *Aphis aquilegiae-flava* Kittel, *Hyalopterus aquilegiae* Koch, *Hyalopterus aquilegiae-flava* Hayhurst and *Aphis trirhoda* Walker. Hottes thought it a synonym of *Macrosiphum rosae* (Linnaeus).
14. *Aphis diplepha.* Wilson thought of this species a a synonym of *Macrosiphum rosae* (L.).
15. *Aphis rhodryas.* Hottes thought of this species as a synonym of *Macrosiphum rosae* (L.).
16. *Aphis viburnum-opulus.* Wilson thought this species to be a synonym of *Aphis viburni* Scopoli. Hottes did not recognize this synonymy and thought it a synonym of *Aphis rumicis* L.
17. *Aphis viburnum-acerifolium.* Wilson thought this species to be a synonym of *Aphis viburni* Scopoli. Hottes thought it a synonym of *Aphis rumicis* L.
18. *Aphis crategus-coccinea.* Wilson thought this species the same as *Aphis crataegifoliae* Fitch. Hottes thought it similar to *Aphis prunifoliae* Fitch.
19. *Aphis cornus-stricta.* Wilson thought it to be synonymous with *Aphis*

cornifoliae Fitch. Hottes thought it synonymous with *Aphis helianthi* Monell.

20. *Aphis populus-grandidentata.* Wilson thought *Chaitophorus populifoliae* Fitch was a synonym of this species. Hottes, because of the " spots on the wings ", did not accept this synonymy and suggested that *Neothomasi populicola* (Thomas) was the correct synonym.
21. *Aphis populus-trepida.* Wilson thought this similar to *Chaitophorus populifoliae* Thomas. Hottes thought it was a composite species *Aphis* sp. and *Chaitophorus populifoliae* Oestlund (Davis).
22. *Aphis jacobaea-balsamita.* Wilson considered this species a synonym *Aphis oreaster* Raf. Hottes thought it the first description of *Macrosiphum ambrosiae* (Thomas).
23. *Aphis oreaster.* Wilson thought the description of this species better than that of *Aphis jacobaea-balsamita.* He thought *Macrosiphum ambrosiae* (Thomas) was a synonym.
24. *Aphis erigeron-strigosum.* Wilson thought *Macrosiphum rudbeckiae* (Fitch) was a synonym.
25. *Aphis gibbosa.* Hottes thought this was the first unquestioned description of *Macrosiphum rudbeckiae* (Fitch) and recognized the priority of the name *gibbosa* over that of *erigeron-strigosum.*
26. *Aphis xanthelis.* Both Wilson and Hottes considered this species to be the same as *Aphis jacobaea-balsamita.*
27. *Aphis annulipes.* Wilson recognized the following species as being synonyms of *annulipes* : *Aphis erigeron-strigosum, Aphis gibbosa, Aphis hieracium-paniculatum* and *Siphonophora rudbeckiae* Fitch. Because *rudbeckiae* has never been reported as being taken on the host mentioned, Hottes rejected this synonymy and thought of it as being similar to *Aphis hieracii* Schrank which at that time he thought similar to *Aphis hieracii* Kaltenbach.
28. *Aphis hieracium-paniculatum.* Wilson thought this species a synonym of *Aphis annulipes.* Hottes thought it a synonym of *Aphis hieracii* Schrank.
29. *Aphis verbena-hastata.* This species has never been placed in synonymy.
30. *Aphis polanisia-graveolens.* This species has never been recognized.
31. *Aphis arabis-mollis.* This species has never been recognized.
32. *Aphis polygala-senega.* This species has not been placed in synonymy.
33. *Aphis brassica-napus.* Hottes placed this species as a synonym of *Aphis brassicae* L.
34. *Aphis erigeron-canadense.* Hottes considered this form a synonym of *Aphis erigeron-philadelphicum* Raf.
35. *Aphis ambrosia.* Hottes thought of it as questionably being a synonym of *Aphis jacobaea-balsamita* Raf.
36. *Aphis acaroides.* This species has not been recognized.

The sub-genus *Cladoxus* was described as having the antennae club-shaped. Hence this genus was based on a form not belonging to the family Aphididae.

The sub-genus *Loxerates* is listed by Börner 1930 as having *Aphis Diervilla-lutea* Raf. as type. This species has never been recognized, hence the genus must remain unknown. The sub-genus *Dactynotus* is listed by Börner as having *Hieracium-paniculatum* Raf. as type. Wilson thought *Macrosiphum rudbeckiae* (Fitch) was a synonym of this species. Hottes thought it belonged to the genus *Myzus* and placed it as a synonym of *Myzus hieracii* (Schrank). In doing so he was not correct, for *Myzus hieracii* Kaltenbach, while a homonym of the species described by Schrank, is most likely not a synonym. Thus the genus *Dactynotus* with *hieracium-paniculatum* as type comes in conflict with the term *Myzus* as used by Baker, 1920 and should replace it. The genus *Adactynus* is listed by Börner as having the species *Aphis Pteris-aquilinoides* Raf. as type. Wilson thought *Mastopoda pteridis* Oestlund was a synonym of this species. Hottes did not agree and thought *Macrosiphum ptericolens* Patch was a synonym. Depending upon whose choice of synonymy is selected, the genus *Adactynus* of Rafinesque is either the equivalent of the genus *Mastopoda* Oestlund or of *Macrosiphum* Passerini.

6. Considering the fact that none of the specific names proposed by Rafinesque has ever been used, together with the fact that if use were to be made of such names for species that can be recognized they would replace names long established, I request the Commission on Zoological Nomenclature, under its plenary powers, to suppress the two papers of Rafinesque in which the specific names concerned appeared. Further, inasmuch as it is difficult to arrive at a definite decision regarding the nature of the species designated as types for the genera proposed by Rafinesque, in the interests of avoiding confusion and the upsetting of names long in general use I request the International Commission on Zoological Nomenclature to suppress these genera.

Further, the Commission is asked to place the names *Mastopoda* Oestlund, 1886, and *Macrosiphum* Passerini, 1860, and *Myzus* Passerini, 1860, with the species which follow as types on the Official List of Generic Names. Further, the Commission is asked to place the names *pteridis* Oestlund (type of *Mastopoda*), *rosae* Linnaeus (type of *Macrosiphum*) and *cerasi* Fabricius (type of *Myzus*) on the Official List of Specific Names, recognizing at the same time that limited use has been made of the genera of Rafinesque under consideration.

7. For the reasons set forth above the International Commission on Zoological Nomenclature is asked :—

(1) to use its plenary powers to suppress for the purposes of the Law of Priority the names published by Rafinesque (C. S.) for aphids in 1817 on pages 360–361 of volume 1 of the *American Monthly Magazine and Critical Review* and in 1818 on pages 15–18 of volume 3 of the same serial publication, the names published in the papers so proposed to be suppressed to retain their status under the Law of Homonymy, though ceasing to possess any rights under the Law of Priority ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

(a) *Mastopoda* Oestlund, 1886 (gender : feminine), type-species, by monotypy, *Mastopoda pteridis* Oestlund, 1886 ;

(b) *Myzus* Passerini, 1860 (gender : masculine), type-species, by original designation, *Aphis cerasi* Fabricius, 1775 ;

(c) *Macrosiphum* Passerini, 1860 (gender : neuter), type-species, by original designation, *Aphis rosae* Linnaeus, 1758;

(3) to place the following specific names on the Official List of Specific Names in Zoology:—
  (a) *pteridis* Oestlund, 1886, as published in the binomen *Mastopoda pteridis* Oestlund (type-species of *Mastopoda* Oestlund, 1886);
  (b) *cerasi* Fabricius, 1775, as published in the binomen *Aphis cerasi* Fabricius (type-species of *Myzus* Passerini, 1860);
  (c) *rosae* Linnaeus, 1758 as published in the binomen *Aphis rosae* (type-species of *Macrosiphum* Passerini, 1860);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the under-mentioned generic names, proposed in (1) above to be suppressed under the plenary powers for the purposes of the Law of Priority but not for those of the Law of Homonymy:—
  (a) *Adactynus* Rafinesque, 1818;
  (b) *Gladoxus* Rafinesque, 1817;
  (c) *Dactynotus* Rafinesque, 1818;
  (d) *Loxerates* Rafinesque, 1818;

(5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the under-mentioned specific names, each published in combination with the generic name *Aphis*, proposed in (1) above to be suppressed under the plenary powers for the purposes of the Law of Priority but not for those of the Law of Homonymy:—
  Aphis acaroides Rafinesque, 1818
  Aphis ambrosia Rafinesque, 1818
  Aphis annulipes Rafinesque, 1818
  Aphis Aquilegia-canadensis Rafinesque, 1817
  Aphis arabis-mollis Rafinesque, 1818
  Aphis Aralia-hispida Rafinesque, 1817
  Aphis brassica-napus Rafinesque, 1818
  Aphis Campanula-riparia Rafinesque, 1817
  Aphis Chenophyllum-canadense Rafinesque, 1817
  Aphis cornus-stricta Rafinesque, 1818
  Aphis crategus-coccinea Rafinesque, 1818
  Aphis Diervilla-lutea Rafinesque, 1817
  Aphis diplepha Rafinesque, 1818
  Aphis erigeron-canadense Rafinesque, 1818
  Aphis erigeron-philadelphicum Rafinesque, 1817
  Aphis erigeron-strigosum, Rafinesque, 1818
  Aphis furcipes Rafinesque, 1817
  Aphis fusciclava Rafinesque, 1817
  Aphis gibbosa Rafinesque, 1818
  Aphis hieracium-paniculatum Rafinesque, 1818
  Aphis Hieracium-venosum Rafinesque, 1817
  Aphis jacobaea-balsamita Rafinesque, 1818
  Aphis Melampyrum-latifolium Rafinesque, 1817
  Aphis oreaster Rafinesque, 1818
  Aphis polanisia-graveolens Rafinesque, 1818

Aphis populus-grandidentata Rafinesque, 1818
Aphis populus-trepida Rafinesque, 1818
Aphis polygala-senega Rafinesque, 1818
Aphis Pteris-aquilinoides Rafinesque, 1817
Aphis rhodryas Rafinesque, 1818
Aphis rosa-suaveolens Rafinesque, 1818
Aphis verbena-hastata Rafinesque, 1818
Aphis viburnum-acerifolium Rafinesque, 1818
Aphis viburnum-opulus Rafinesque, 1818
Aphis verticolor Rafinesque, 1817
Aphis xanthelis Rafinesque, 1818

This case was first submitted to the Commission by Dr. Hottes in December 1947.

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MYMAR CURTIS, 1829 (INSECTA, HYMENOPTERA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS.

Z.N.(S.) 479

By Richard L. Doutt (*University of California, Berkeley, U.S.A.*) and
David P. Annecke (*Division of Entomology, Pretoria, R.S.A.*)

This petition is to request the International Commission on Zoological Nomenclature to use its plenary powers to set aside all designations of type-species for the nominal genus *Mymar* Curtis, 1829, and, having done so, to designate *Mymar pulchellum* Curtis, 1832, to be the type-species of *Mymar* Curtis, 1829 (Insecta, Hymenoptera).

The genus *Mymar* Curtis, 1829, is the basis of a family-group name, MYMARIDAE. This family of parasitic wasps contains species which are of considerable importance in applied biology for they attack the eggs of many noxious insects. They have been used effectively in the biological control of certain major insect pests in South Africa, the western United States, and Hawaii.

The purpose of this petition is to preserve the use of the name *Mymar* in the sense of Haliday, 1833, for this was the concept followed by all students of the family MYMARIDAE for over 90 years and is today the view held by the overwhelming majority of current specialists in the family. The relevant history of the genus *Mymar* Curtis is as follows:

1829: Curtis (*Guide to Brit. Ins.*: 112) published the name *Mymar* without description, but included 18 species, three of which were of earlier authors (e.g. Linnaeus), and thus conferred availability on the generic name. Curtis mentioned "*Mymar pulchellus*" but it was a *nomen nudum*.

1832: Curtis (*Brit. Ent.* **9** : 411) described and figured the genus based on *Mymar pulchellum*, but designated *Ichneumon punctum* Shaw, 1798, as "Type of the genus"; he stated in a note that the "Dissections and descriptions are taken from the species figured", and the figured species is *Mymar pulchellum*.

1833: Haliday (*Ent. Mag.* **1** : 349) described the genus *Mymar* based on *M. pulchellum*, and referred *Ichneumon punctum* Shaw to his new genus *Anaphes*.

1839: Westwood (*Introd. mod. Classif. Ins.* **2** (Synopsis) : 78) followed Haliday (1833) and designated "*Mymar pulchellus* Curt." as the type of *Mymar*, and he then designated *Ichneumon punctum* as the type-species of *Anaphes*.

1846: Walker (*Ann. Mag. nat. Hist.* **18** : 49–54) followed Haliday (1833).

1847: Foerster (*Linn. Ent.* **2** : 224) followed Haliday (1833).

1856: Foerster (*Hym. Stud.* **2** : 120) followed Haliday (1833).

1879: Westwood (*Trans. linn. Soc. Lond.* (2) **1** : 583–593) used the name *Mymar* when redescribing *M. taprobanicum* Ward and for a new species, *wollastonii*; in a footnote he proposed the new generic name *Mymarilla* for the latter species.

1904 : Ashmead (*Mem. Carneg. Mus.* **1**(4) : 364) cited " *M. pulchellus* Hal." as the type of " *Mymar* Haliday ".

1911–17 : Girault (various papers) applied the name *Mymar* in the sense of Haliday (1833).

1923 : Gahan & Fagan (*Bull. U.S. nat. Mus.* **124** : 92) recognized the original citation of *Ichneumon punctum* Shaw as the correct type of " *Mymar* (Haliday) Curtis ", and placed *Anaphes* Haliday in synonymy as an isogenotypic species.

1944 : Hincks (*Proc. R. ent. Soc. Lond.* (B)**13** : 38) analysed the situation and concluded that Curtis's designation of *I. punctum* as the type of *Mymar* was incorrect since it belongs in a different genus (namely, *Anaphes* Haliday) and since the description and figures accompanying this designation have reference to *M. pulchellum* ; he said " Westwood's designation of *M. pulchellus* is therefore valid and should be followed as hitherto."

1945 : Kloet & Hinks (*A check list of British insects* : 304) implemented Hincks's (1944) view.

1946 : Soyka (*Zbl. Gesamtgeb. Ent.* **1** : 181) proposed *Ogloblinielia* as a new name for *Mymar* in the sense of Haliday.

1948 : Debauche (*Mém. Mus. Hist. nat. Belg.* **103** : 232–239) applied the name *Mymar* in the sense of Haliday (1833) ; he observed in a footnote (p. 155) that Curtis's designation of *I. punctum* as type had at that time a meaning, namely, merely an example, quite different from the modern connotation.

1949 : Gahan (*J. Wash. Acad. Sci.* **39** : 204–205) gave a detailed critique of Hincks's view, and stated that in terms of the rules of nomenclature Hincks's proposals are unacceptable ; he also criticized Soyka's stand and held that until it can be shown that the species *wollastonii* Westwood and *pulchellum* Curtis are not congeneric, the name *Mymarilla* should be used for *pulchellum* and congeners ; he held, too, that Curtis's (1832) description was broad enough to include both *punctum* and *pulchellum.*

1950 : Kryger (*Ent. Medd.* **26** : 71–74) applied the name *Mymar* in the sense. of Haliday (1833) and Hincks (1944).

1951 : Peck (*in* Muesebeck *et al.*, *U.S. Dept. Agric. Monogr.* 2: 418) implemented Gahan's (1949) view.

1952 : Hincks (*Trans. Soc. Brit. Ent.* **11**(7) : 153–163) discussed Soyka's (1949) application of the name *Mymar* to *punctum*-like forms and pointed out that Curtis's original type designation is equivocal and taxonomically untenable since his illustrations and description refer not to *punctum* but to *pulchellum* ; he also stated that he proposed to apply to the International Commission of Zoological Nomenclature petitioning that " *Mymar* Curtis, 1832, generotype *M. pulchellus* Curtis, be placed on the Official List of Generic Names ".

1955 : Soyka (*Mitt. münch. ent. Ges.* **44/45** : 460–475) applied the name *Mymar* to *punctum*-like forms in accordance with the Gahan view.

1955 : Doutt (*Ins. Micronesia* **19**(1) : 12) used *Mymarilla* in accordance with the Gahan view.

1958: Burks (*in* Krombein *et al.*, *U.S. Dept. Agric. Monogr.* (First Suppl.) 2 : 63) followed the usage in the Muesebeck (1951) catalogue.

1961 : Annecke & Doutt (*Ent. Mem. Dep. Agric. S. Afr.* 5 : 26–29) employed *Mymar* in the sense of Haliday (1833).

1961 : Annecke (*S. Afr. J. Agric. Sci.* 4(4) : 543–552) revised the genus *Mymar* Curtis *sensu* Haliday (1833).

Although it is evident from the foregoing that the genera *Mymar* Curtis, 1829, and *Anaphes* Haliday, 1833, are isogenotypic according to the rules of the International Code of Zoological Nomenclature, nevertheless, until quite recently all students of the family MYMARIDAE used *Mymar* and *Anaphes* in the sense of Haliday, 1833, and Westwood, 1839. The late A. B. Gahan favoured the adherence to the rules of priority, and the same view is apparently currently held by the Reverend Soyka. All other specialists in the MYMARIDAE, insofar as the authors have been able to ascertain through extensive correspondence, favour this petition and the continued use of *Mymar* and *Anaphes* in the sense of Haliday, 1833, and Westwood, 1839. For this reason, and also because of the extensive economic references to species in the family, the Commission is asked:

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Mymar* Curtis, 1829, and having done so, to designate *Mymar pulchellum* Curtis, 1832, to be the type-species of that genus.

(2) to place the following generic names on the Official List of Generic Names in Zoology:
   (a) *Mymar* Curtis, 1829 (gender : neuter), type-species, by designation under the plenary powers in (1) above, *Mymar pulchellum* Curtis, 1832;
   (b) *Mymarilla* Westwood, 1879 (gender : neuter), type-species, by original designation, *Mymar wollastonii* Westwood, 1879;
   (c) *Anaphes* Haliday, 1833 (gender : neuter), type-species, by original designation, *Ichneumon punctum* Shaw, 1798;

(3) to place the following specific names on the Official List of Specific Names in Zoology;
   (a) *pulchellum* Curtis, 1832, as published in the binomen *Mymar pulchellum* (type-species of *Mymar* Curtis, 1829);
   (b) *wollastonii* Westwood, 1879, as published in the binomen *Mymar wollastonii* (type-species of *Mymarilla* Westwood, 1879);
   (c) *punctum* Shaw, 1798, as published in the binomen *Ichneumon punctum* (type-species of *Anaphes* Haliday, 1833);

(4) to place the following generic name on the Official Index of Rejected and Invalid Generic Names in Zoology:
   (a) *Ogloblinіella* Soyka, 1946 (an objective synonym of *Mymar* Curtis. 1829);

(5) to place on the Official List of Family-Group Names in Zoology:
   (a) MYMARIDAE (Haliday, in Westwood 1839), type-genus *Mymar* Curtis, 1829);
   (b) ANAPHINI (Ashmead, 1904), type-genus *Anaphes* Haliday, 1833.

YERBUA FORSTER, 1778 (MAMMALIA) : PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 653

By T. C. S. Morrison-Scott (*British Museum* (*Nat. Hist.*) *London, S.W.*7)

The genus *Yerbua* was established by Forster in 1778 (*K. svenska Vetensk.-Akad. Handl.* **39** : 111) for eight species :—

Y. tarsata Forster (=*Lemus tarsier* Erxleben, 1777, now in *Tarsius* Storr, 1780) ;
Y. sibirica Forster (now in *Allactaga* Cuvier, 1837) ;
Y. capensis Forster (now in *Pedetes* Illiger, 1811) ;
Y. meridiana Pallas (now in *Meriones* Illiger, 1811) ;
Y. kangaru Forster (=*Mus canguru* Müller, 1776, now in *Macropus*) ;
Y. longipes Linnaeus (now in *Meriones* Illiger, 1811) ;
Y. jaculus Pallas (now in *Allactaga* Cuvier, 1837) ;
Y. sagitta Pallas (now in *Dipus* Zimmermann, 1780).

The genera *Tarsius*, *Allactaga*, *Pedetes*, *Meriones*, *Macropus*, and *Dipus* are all well established, and the name *Yerbua*, which is not in use, would appear to upset one of them depending on which of the above eight species is regarded as the type-species. No type-species appears to have been designated for *Yerbua* Forster by any subsequent workers.

The point does not seem to have caused any trouble up till now. This may be because *Yerbua* Forster, 1778, could be regarded as an alternative spelling of *Jerboa* Zimmermann, 1777 (*Spec. Zool. Geogr.* : 522), (*Yerboa* ibidem : 525 and 526) the type-species of which may be taken as *Mus jaculus* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 63) which is now in the genus *Jaculus* Erxleben, 1777 (*Syst. Regni. Animalis* : 404). And so (assuming Erxleben, 1777, to be prior to Zimmermann, 1777—I do not know whether it is), *Jerboa* could be regarded as a synonym of *Jaculus*. In this way *Jaculus* would not be disturbed and *Yerbua* would be out of harm's way as a synonym of *Jerboa*.

But now we are in difficulties, since the Commission has ruled that Zimmermann, 1777, is unavailable (Opinion 257, 1954) and *Yerbua* Forster can no longer be regarded as a junior synonym of *Jerboa* Zimmermann.

2. In order to maintain current usage and to prevent any future confusion in the nomenclature, it becomes necessary to suppress *Yerbua* Forster, 1778 but to retain some of his species. The International Commission on Zoological Nomenclature is therefore asked to take the following action :—

(1) to use its plenary powers to suppress the generic name *Yerbua* Forster, 1778, for the purposes of the Law of Priority, but not for those of the Law of Homonymy ;
(2) to place the generic name *Jaculus* Erxleben, 1777 (gender masculine), type-species by tautonymy *Mus jaculus* Linnaeus, 1758, on the Official List of Generic Names in Zoology ;
(3) to place the following specific names on the Official List of Specific Names in Zoology :

(a) *jaculus* Linnaeus, 1758, as published in the binomen *Mus jaculus* (type-species of *Jaculus* Erxleben, 1777) ;
(b) *sibirica* Forster, 1778, as published in the binomen *Yerbua sibirica* ;
(c) *capensis* Forster, 1778, as published in the binomen *Yerbua capensis* Forster ;

(4) to place the following generic names on the Official List of Rejected and Invalid Generic Names in Zoology.;
(a) *Yerbua* Forster, 1778, as suppressed under the plenary powers in (1) above.
(b) *Jerboa* Zimmermann, 1777 (published in a work rejected in Opinion 257, 1954) ;

(5) to place the specific name *kangaru* Forster, 1778, as published in the binomen *Yerbua kangaru* (an objective synonym of *Mus cangaru* Müller, 1776, now placed in *Macropus* Shaw, 1790) on the Official Index of Rejected and Invalid Specific Names in Zoology.

This Case was first submitted to the Commission by Dr. Morrison-Scott in February, 1952.

COMMENT ON THE PROPOSED VALIDATION OF *DOTO* OKEN, 1815 (GASTROPODA)

(see volume 19, pages 156–159)

By Nils Odhner (*Naturhistoriska Riksmuseet, Stockholm, Sweden*)

Dr. H. Lemche has proposed " to validate the generic name *Doto* Oken, 1815, with *D. coronata* Gmelin, 1791, as type-species ", and this proposal I find well worthy of sanction.

On the other hand, the second proposal of the same author has to be rejected, where he asks " to place the family-group name DOTONIDAE Gray, 1853 (type-genus *Doto* Oken, 1815), an incorrect original spelling for DOTOIDAE, on the Official Index " etc.

The name DOTONIDAE is indeed spelt quite in accordance with the linguistic rules exemplified by some Latin family names such as Cato (gen. Catonis, fam. Catonidae), Plato (gen. Platonis) or substantives (sipho, gen. siphonis, Bufo, Bufonis, etc.). DOTONIDAE is therefore the correct spelling, and just the orthography recommended by the International Code of Zoological Nomenclature, Art. 29, since formed by adding -idae to the *stem*, whereas the form proposed by Lemche quoted above is against the Code.

PROPOSED VALIDATION OF *PSYLLA* GEOFFROY, 1762, AND SUPPRESSION OF *CHERMES* LINNAEUS, 1758, UNDER THE PLENARY POWERS (INSECTA, HEMIPTERA). Z.N.(S.) 1515

By V. F. Eastop (*British Museum* (*Natural History*), *London*)

For many years there has been considerable confusion between the names *Psylla* Geoffroy, 1762, *Chermes* Linnaeus, 1758, and *Adelges* Vallot, 1836. Family names have been derived from all three generic names and *Chermes* itself has been used in five different ways in four different families of Homoptera. In the following account the anglicised word " psyllids " is used for the jumping plant lice known as Psyllidae (or sometimes Chermidae) ; " adelgids " for the family of Aphidoidea known as Adeligidae (or sometimes Chermidae) ; " aphids " for Aphididae in a broad enough sense to include *Eriosoma* but to exclude Phylloxeridae and Adelgidae ; and " coccids " for Coccoidea. The name *Chermes* has been used both for Coccoidea and Aphididae in addition to its better known uses for Adelgidae and Psyllidae.

2. Linnaeus (1758, *Syst. Nat.* (ed. 10) **1** : 453–455) proposed the name *Chermes* for fourteen species, nine of which are currently accepted as psyllids, one as an aphid and one as an adelgid. The other three have been referred to as psyllids by some authors but this has been disputed by others so that the names are usually now regarded as nomina dubia. The three species included by Linnaeus and subsequently selected as types of the genus are the psyllids *Chermes alni* (: 454) and *Chermes ficus* (: 455), now usually called *Psylla alni* (L.) and *Homotoma ficus* (L.) respectively, and the adelgid *Chermes abietis* now usually called *Sacchiphantes* or *Adelges abietis* (L.).

3. Geoffroy, 1762 (*Hist. abrég. Ins. Paris* : 482) replaced Linnaeus' generic concept of *Chermes* with *Psylla* because the name *Chermes* is apparently derived from an Arabic word also in use in France at that time for a coccid or its products ; placed *Chermes* Linnaeus as a synonym of *Psylla* ; and used *Chermes* to replace *Coccus* Linnaeus. The reason for the replacement of *Chermes* Linnaeus by *Psylla* is set out on pages 498–499 under *Chermes*. *Psylla* Geoffroy, 1762, was invalidated when Geoffroy's work was rejected for nomenclatural purposes by the International Commission on Zoological Nomenclature in Opinion 288, 1954.

4. Scopoli (1763, *Ent. Carn.* : 139), Fabricius (1775, *Syst. Ent.* : 740 ; 1794, *Ent. syst.* : 221 and 1803, *Syst. Rhynch.* : 303) ; Goeze (1778, *Ent. Beytrage* : 318), Schneider (1785, *Nomen. ent.* : 32) followed Linnaeus in using *Chermes* for psyllids. Schrank (1781, *Enum. Ins. Aust. Indig.* : 294) and 1801 (*Fauna Boica* : 47, 140) also used *Chermes* for psyllids but his *Chermes abietis* is probably a psyllid and not an adelgid. The later authors such as Goeze (1778) listed *Psylla* Geoffroy as a synonym of *Chermes* Linnaeus. Vallot (1792, *Concord. Syst. Reaumur* : 97) used *Chermes* for the genus with the common name La Psylle and Kermes for the common name of the genus *Coccus* Linnaeus.

5. De Geer (1783, *Gen. Spec. Ins.* : 78) recognised the aphidoid nature of *Chermes abietis* Linnaeus, placing it in *Aphis* and restricting the name *Chermes* to the psyllids he knew.

6. Olivier (1798, *Ency. Meth.* **1** : introduction, p. 24) described *Psilla* (sic) Geoffroy (=*Chermes* Linn., Fabr.) as insects with leaping legs but listed no species. Latreille (1796, *Précis. Char. gen. Ins.* : 93) described *Psylla* Geoffroy, placed *Chermes* Linnaeus as a synonym and used *Chermes* for coccids.

7. Lamarck (1801, *Syst. Anim. s. Vertèbr.* : 298) cited *Chermes ficus* Linnaeus as an example of *Psylla*. This citation is not available as a type-designation but helps to explain later confusion, as it was accepted as a type citation by some authors.

8. Latreille ([1802-1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 266–267) established a genus *Psylla* without reference to Geoffroy, for two species, *Chermes alni* Linnaeus, 1758, and *Chermes ficus* Linnaeus, 1758, and in 1810 (*Consid. gén. Crust. Arachn. Ins.* : 434) designated *Chermes alni* Linnaeus, 1758, as the type of the genus *Psylla*. It is in this sense that most later authors have used the name *Psylla*. In 1807 (*Gen. Crust. Ins.* **3** : 168) Latreille used the family-group name Psyllidae. Latreille, 1817 (*in* Cuvier, *Règne Anim.* **3** : 409) made it clear that his *Psylla* is an alternative name for *Chermes* referring to the group as " Des Psylles (Psylla) de Geoffroi ou celui des Chermes de Linnaeus ".

9. Fallén (1814, *Spec. nov. Hemipt. Disp. Meth.* : 22) used a family-group name Chermides for psyllids.

10. Leach, 1815 (*Edinburgh Ency.* **9** : 125) used *Psylla* (with *Chermes* as a synonym) for psyllids ; in 1819, Samouelle (*Entom. usef. Comp.* : 231) used Psyllidae and *Psylla* for psyllids and in 1829 (*Syst. Cat. Brit. Ins.* : 361) used a genus *Psylla* and (: 362) included *Chermes abietis* Linnaeus in *Psylla*.

11. Boitard, 1828 (*Man. d'ent.* : 165) used *Psylla* for psyllids and a genus *Kermes* for coccids.

12. Stephens (1829, *Nomencl. brit. Ins.* : 67) used Psyllidae and *Psylla*, included *abietis* Linnaeus in *Psylla* and listed an aphid under the name *Eriosoma abietis* Stephens. Some later authors placed *Chermes abietis* Linnaeus in the aphid genus *Eriosoma*.

13. Cuvier (1832, *Règne Anim.* **2** : 264–267) used the Latreille concept of *Chermes* and *Psylla*. Latreille was responsible for the entomological part of earlier Cuvier publications (see no. 8 above).

14. In 1834, 1835 and 1836 Curtis (*Brit. Ent.* : 492, 565, 625) used the family-group name Psyllidae for psyllids.

15. Burmeister ([1834–1835], *Handb. Ent.* **2** : 88) used *Chermes* for gall-forming insects including both *Chermes abietis* Linnaeus and some true aphids and (on page 95) used the group name Psyllodes and genus *Psylla* for psyllids.

16. Vallot, 1836 (*C. R. Acad. Sci.*, Paris **3** : 72) described a new genus and species *Adelges laricis* and (p. 73) a new psyllid, *Psylla cofeae* (sic).

17. Haliday, 1839 (*Ann. Mag. nat. Hist.* **2** : 190) used *Adelges* for the two adelgids he knew.

18. Hartig, 1839 (*Jahr. Forst. Forst. Nat.* **1836/1837** : 622) and 1841 (*Zeit. f.*

Ent. **3** : 366) used *Chermes* for adelgids only. This usage was followed by Kaltenbach (1843, *Mon. Fam. Pflanzenläuse* : 193) and Koch (1857, *Die Pflanzenlause*, Aphiden : 314). Buckton (1882, *Mon. Brit. Aphid.* **4** : 19) used a sub-family name Chermesinae for adelgids, as did Cholodkovsky (1888–1915) and Börner (1904–1913) in numerous papers on the group.

19. Westwood (1840, *Introd. mod. Classif. Ins.* **2** : 435–437) used Psyllidae and *Psylla* for psyllids and (: 442) placed *abietis* Linnaeus in the aphid genus *Eriosoma* Samouelle, 1819 (*Ent. usef. Comp.* : 232), and in a footnote on page 441 says, " I do not know the genus *Adelges* Vallot ". At the end of the same work in his Synopsis Gen. Brit. Ins. : 117, Westwood cited *Chermes pyri* Linnaeus as the type-species of *Psylla*. In 1843 (*Arcana Entom.* **2** : 63, footnote), Westwood used *Adelges* Vallot for adelgids.

20. Amyot & Serville, 1843 (*Hist. nat. Ins. Hémipt.*) used Psyllides for psyllids (: 590) with *Psylla* Geoffroy (: 591) ; and *Chermes* Geoffroy for coccids.

21. Curtis, 1844 (*Gardener's Chronicle* **1844** : 83) established the genus *Sacchiphantes* with the adelgid *Chermes abietis* Linnaeus, 1758, as the type.

22. Blanchard, 1845 (*Hist. Ins.* **2** : 415) used *Chermes* for adelgids and *Psylla* for psyllids.

23. Hardy, 1850 (*Ann. Mag. nat. Hist.* **6** : 187) used *Adelges abietis* for this adelgid.

24. Walker, 1852 (*List. Homopt. Ins. Brit. Mus.* : 909) used Psyllidae for psyllids and *Adelges* for adelgids.

25. Passerini, 1860 (*Gli Afidi* : 30) selected *Chermes abietis* Linnaeus as the type of *Chermes* Linnaeus, 1758, presumably to regularize the usage of Hartig (1839) and followers (listed in 18 above).

26. Frauenfeld, 1868 (*Verh. Zool.-Bot. Ges. Wien* **18** : 896–897) discussed the application of the name *Chermes*.

27. Maskell, 1884 (*N.Z. J. Sci.* **2** : 292) and 1885 (*Trans. N.Z. Inst.* **17** : 19) regarded *Chermes* and *Kermes* as the same name and used *Kermes* for coccids erecting a new name for adelgids, *Kermaphis*. He only included one species *Kermaphis pini* Koch var. *laevis* which apparently comes in the genus *Pineus* and *Kermaphis* Maskell, 1884, is thus a synonym of *Pineus* Shimer, 1869.

28. Lichtenstein, 1885 (*Mon. Aphid.* : 162) used Chermesiens as a group name to include both adelgids and those species of true aphids he knew which held the wings flat on the back in repose, but he used the generic name *Adelges* Vallot for these insects, rejecting *Chermes* Linnaeus, 1758, on the grounds that Linnaeus described *Chermes* as jumping insects.

29. Kirkaldy, 1904 (*Entom. Lond.* **37** : 255) accepted Lamarck's 1801 example (*Chermes ficus* Linnaeus) of *Chermes* Linnaeus, as being a type citation and used the genus *Chermes* and the family-group name Chermidae for the psyllids.

30. Van Duzee, 1917 (Cat. Hemipt. Amer. north of Mexico, *Univ. Calif. Techn. Bull. Coll. Agric.* **2** : 782) who was the chief proponent of the " logical school " used Chermidae in place of Psyllidae. Van Duzee believed that since Linnaeus described mainly psyllids and because his generic definition of *Chermes* applied to psyllids and excluded aphids and adelgids, the fact that Linnaeus included a species not a psyllid (which was later selected as a type-

species), should not be allowed to alter the use of the name *Chermes* from the sense in which Linnaeus used it. This argument is set out in detail by Van Duzee (1930, *Pan-Pacific Ent.* **7** : 96, editorial).

31. Baker, 1920 (*Bull. U.S. Dept. Agric.* 826 : 2) supported Van Duzee's conclusions with a legally acceptable argument. This was that since Geoffroy's name *Psylla* was only a replacement name for *Chermes* Linnaeus the rules applying to the type-species of replacement genera must be applied, which automatically makes the type of *Psylla* the type of *Chermes* and thus *Psylla* Geoffroy becomes a synonym of *Chermes* Linnaeus. Since Lamarck's 1801 example is not acceptable as a type citation, Latreille's 1810 type-designation of *Chermes alni* Linnaeus becomes the type-species of both genera. This argument is supported and set out in detail by Laing (1951, *Ent. mon. Mag.* **87** : 23–27) using the Latreille type citation.

32. Annand, 1924 (*Pan-Pacific Ent.* **1** : 79–82) accepted the psyllid use of *Chermes* Linnaeus and used *Adelges* Vallot for adelgids.

33. Annand, 1928 (*Stan. Univ. Publn. Biol. Sci.* **6** : 31) used a subfamily name Adelginae for the adelgids. The earlier authors had placed adelgids in various groups and by the time their aphidoid position was established the group was known as the Chermidae and usually placed as a subfamily of Phylloxeridae.

34. Börner, 1932 (*Handb. Pflanzenkrankheiten* **5**(2) : 674, 692) rejected *Chermes* as an adelgid genus, placing "*Chermes* Passerini nec Linnaeus" as a synonym of *Sacchiphantes* Curtis, 1844, and referring to the group as the Adelgiden. In 1952 Börner (*Europae centralis Aphides* : 203, 208) maintained this view.

35. Caldwell, 1944 (*J. New York ent. Soc.* **52** : 335, footnote) stated that *Chermes alni* Linnaeus, 1758 (the type-species of *Psylla* Lattreille, [1802-1803]) was the same insect as *Prociphilus tessellatus* (Fitch), a true aphid. If true this would mean that the name *Chermes* Linnaeus would have to be used in the Aphididae for the genus *Prociphilus* Koch, 1857 (*Die Planzenläuse Aphiden* : 2). This use of the already nomenclaturally perplexing name *Chermes* would be particularly confusing as it would affect the subfamily (family in the case of modern authors) name of this group. Linnaeus gave four references under his species *alni* in 1758, one of which was to an American account of what was assumed to be this psyllid but which was subsequently shown to be the aphid *Prociphilus tesselatus* (Fitch). There is no evidence that Linnaeus ever saw this American material and no reason to select this particular reference as a definition of *Chermes alni* Linnaeus.

36. A detailed account of the problem of *Chermes* versus *Psylla* was given by Laing, 1951 (*Ent. mon. Mag.* **87** : 23–27). He used *Chermes* Linnaeus to replace *Psylla* Geoffroy with *Psyllia* Kirkaldy, 1905 (*Wien ent. Ztg.* **24** : 266) as a synonym ; regarded *Chermes* Geoffroy, 1762, as a distinct but preoccupied name ; recognised an adelgid genus *Sacchiphantes* Curtis, 1844, type-species *Chermes abietis* Linnaeus, 1758, with *Chermes* (L.) Passerini, 1860, as an objective synonym ; and recognised an adelgid genus *Pineus* Shimer, 1869, with *Chermaphis* Maskell, 1884, as a subjective synonym.

37. The generic name *Chermes* Linnaeus, 1758, and the derived family-

group name Chermidae Fallén, 1814, are not in current use by specialists for their own group, although some specialists apply the name to groups on which they are not working. Adelgid specialists do not recognise Passerini's type citation by which some psyllid specialists apply *Chermes* and Chermidae to *Sacchiphantes* Curtis, 1844, and Adelgidae respectively. Aphid specialists tend to accept the replacement name argument put forward by Baker, 1920 (see 31 above), whereby *Chermes* and Chermidae are applied to *Psylla* and Psyllidae respectively. *Chermes* Linnaeus has not been used in Coccoidea for many years but its sense is taken by *Kermes* Boitard, 1828. The suggested replacement of *Prociphilus* Koch, 1857, by *Chermes* Linnaeus has been (properly) ignored by specialists.

38. *Chermes* Linnaeus, 1758, has been used in five different ways and the derived family name Chermidae in four different ways.

(1) *Chermes* L. to replace *Psylla* Latreille, type-species *Chermes alni* Linnaeus and Chermidae to replace Psyllidae.
(2) *Chermes* L. to replace *Homotoma* Guérin (type-species *Chermes ficus* Linnaeus) and Chermidae to replace Psyllidae and *Psylla* replaced by *Psyllia* Kirkaldy, 1905.
(3) *Chermes* L. to replace *Sacchiphantes* Curtis, 1844 (type *Chermes abietis* Linnaeus) and Chermidae to replace Adelgidae.
(4) *Chermes* L. to replace *Prociphilus* Koch and Cherminae (or Chermidae) to replace Eriosomatinae (or Eriosomatidae).
(5) *Chermes* L. in Coccoidea, a usage of no nomenclatural standing but based on the derivation of the word.

The fifth of the above alternatives is unacceptable by any sense of the word and the fourth has only been mentioned by one author other than the proposer and he (Laing, *Ent. mon. Mag.* **87** : 51) summarily dismissed it. The second alternative is not acceptable by the rules, being based on an invalid type citation. Only the first and third alternative have had any recent support. The adoption of any of these alternatives would cause considerable nomenclatural confusion including the change of an accepted family name.

39. To avoid this confusion the Internation Commission on Zoological Nomenclature is requested to take the following action :

(1) to use its plenary powers :
    (a) to validate the generic name *Psylla* Geoffroy, 1762, as allowed by Opinion 228, and to designate *Chermes alni* Linnaeus, 1758, as type-species of that genus ;
    (b) to suppress the generic name *Chermes* Linnaeus, 1758, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
(2) to place the following generic names on the Official List of Generic Names in Zoology :
    (a) *Psylla* Geoffroy, 1762 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Chermes alni* Linnaeus, 1758 ;
    (b) *Adelges* Vallot, 1836 (gender : masculine) type-species, by monotypy, *Adelges laricis* Vallot, 1836 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology:
   (a) *alni* Linnaeus, 1758, as published in the binomen *Chermes alni* (type-species of *Psylla* Geoffroy, 1762);
   (b) *laricis* Vallot, 1836, as published in the binomen *Adelges laricis* (type-species of *Adelges* Vallot, 1836);

(4) to place the following family-group names on the Official List of Family-Group Names in Zoology:
   (a) PSYLLIDAE Latreille, 1807 (type-genus *Psylla* Geoffroy, 1762);
   (b) ADELGINAE Annand, 1928 (type-genus *Adelges* Vallot, 1836);

(5) to place the generic name *Chermes* Linnaeus, 1758 (as suppressed under the plenary powers in (1)(b) above) on the Official Index of Rejected and Invalid Generic Names in Zoology;

(6) to place the family-group name CHERMIDES Fallén, 1814 (type-genus *Chermes* Linnaeus, 1758) (invalid because the name of its type-genus has been suppressed under the plenary powers) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

DACTYLOPUSIA NORMAN, 1903 (CRUSTACEA, COPEPODA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS IN ACCORDANCE WITH COMMON USAGE. Z.N.(S.) 1517

By W. Vervoort (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

1. The object of the present application is to request the International Commission on Zoological Nomenclature to preserve, by addition to the Official List, the generic name *Dactylopusia*, proposed by Norman (1903) for *Dactylopus* Claus, 1863 (Copepoda : Harpacticoida : Thalestridae ; preoccupied by *Dactylopus* Gill, 1859). As type of the genus *Dactylopusia* Norman indicated the species *Dactylopus strömii* (Baird, 1837). This species, however, is referable to the LAOPHONTIDAE, a family of Harpacticoid Copepods quite different from the THALESTRIDAE, a family to which the genus *Dactylopusia*, in the currently accepted sense, belongs. A strict application of the International Rules of Zoological Nomenclature would necessitate the removal of *Dactylopusia* from the THALESTRIDAE to the LAOPHONTIDAE, which would cause no end of confusion. Lang (1944, 1948), in a monograph on Harpacticoid Copepods likely to be widely used, has entirely split up the genus *Dactylopusia* as defined by Claus (1863) and Norman (1903). In the course of this process he substituted without any obvious reason a new name, *Dactylopodia*, for *Dactylopusia*. The generic name *Dactylopusia*, however, should be conserved. The details of the case are as follows :

2. Claus, 1863 (*Die freilebenden Copepoden*, etc. : 126) introduced the generic name *Dactylopus* for a genus of Harpacticoid Copepods, apparently unaware of the fact that the generic name *Dactylopus* had been used previously by Gill, 1860 (*Proc. Acad. nat. Sci. Philad.* (1859) : 130) for a genus of fishes. A large number of species were brought by Claus, 1863, to his genus *Dactylopus*, but no distinct type was indicated ; the first species mentioned, however, is *Dactylopus strömii* (Baird, 1837) (=*Cyclops strömii* Baird, 1837, *Mag. Zool. Bot.* **1** : 330, pl. 8, figs. 23–25).

3. Norman, 1903 (*Ann. Mag. nat. Hist.* (7) **11** : 368) substituted the generic name *Dactylopusia* for *Dactylopus* Claus, 1863, designating as the type of his genus the species *Dactylopus strömii* (Baird, 1837), which thereby also becomes the type of *Dactylopus* Claus, 1863.

4. It is clear that Norman, when designating *Dactylopus strömii* as the type of *Dactylopusia*, meant the species identified by Claus as such. Claus's identification, however, is incorrect as Baird's original figures (1837, *Mag. Zool. Bot.* **1** : pl. 8, figs. 23–25) leave no doubt that his *Cyclops strömii* is referable to the LAOPHONTIDAE and not to the THALESTRIDAE.

5. *Cyclops strömii* Baird, 1837, as described by that author, has been designated by Lang, 1948 (*Monographie der Harpacticiden* : 1364) as the type of the genus *Heterolaophonte* Lang, 1948, of the family LAOPHONTIDAE.

6. A strict application of the International Rules of Zoological Nomenclature

makes *Cyclops strömii* Baird, 1837, the type of *Dactylopusia*, necessitating the transfer of Norman's genus from the THALESTRIDAE to the LAOPHONTIDAE, where it should take the place of *Heterolaophonte* Lang, 1948. This, however, will cause much confusion as the generic name *Dactylopusia* Norman, 1903, in its original sense has been widely used.

7. As Sars, 1905 (*Account Crustacea of Norway* 5 : 129) pointed out the material which Claus, 1863, referred to Baird's *Cyclops strömii* actually belongs to a new species, described by Sars (l.c. : 128, pl. 79, fig. 1) as *Dactylopusia vulgaris*. This is the species which Norman actually intended to designate as the type of *Dactylopusia*.

8. Lang, 1944 (*Monographie der Harpacticiden*, Vorl. Mitteil. : 12) entirely split up the old genus *Dactylopusia* Norman, 1903, and even went so far as to drop that name altogether, replacing it, without obvious reason, by the new name *Dactylopodia* Lang, 1944 (" Doch habe ich jetzt die Gattung *Dactylopusia* ins *Dactylopodia* umgetauft und einige Arten herausgebrochen, die ich in einer Gattung *Paradactylopodia* vereinige " ; Lang, 1944, l.c. : 12). There seems no reason at all for a new name and *Dactylopodia* may disappear as a junior objective synonym of *Dactylopusia*. Moreover, Lang (1944 : 13) completely neglected Norman's original type designation of *Dactylopusia* by designating *Dactylopus tisboides* Claus, 1863, as the type of *Dactylopodia*.

9. *Dactylopusia* Norman, 1903, represents the type-genus of the subfamily DACTYLOPUSIINAE Lang, 1936 (incorrectly spelled by that author as DACTYLOPODIINAE).

10. Summarizing, the International Commission on Zoological Nomenclature is now asked :

(1) to use its plenary powers :
   (a) to set aside all type indications or selections for the genus *Dactylopusia* Norman, 1903, made prior to the proposed Ruling, and having done so
   (b) to designate as the type of that genus *Dactylopusia vulgaris* G. O. Sars, 1905 ;
(2) to place on the Official List of Generic Names in Zoology :
   (a) the name *Dactylopusia* Norman, 1903 (gender : feminine), type-species designated under the plenary powers in (1)(b) above : *Dactylopusia vulgaris* G. O. Sars, 1905 ;
   (b) the name *Heterolaophonte* Lang (1948 : 1363) (gender : feminine), type-species, by designation by Lang, 1948 : *Cyclops strömii* Baird, 1837 ;
(3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Dactylopodia* Lang, 1944, as a junior objective synonym of *Dactylopusia* Norman, 1903 ;
(4) to place on the Official List of Specific Names in Zoology :
   (a) the name *vulgaris* G. O. Sars, 1905, as published in the binomen *Dactylopusia vulgaris* (type-species of *Dactylopusia* Norman, 1903) ;
   (b) the name *strömii* Baird, 1837, as published in the binomen *Cyclops strömii* (type-species of *Heterolaophonte* Lang, 1948) ;

(5) to place on the Official List of Family Group Names in Zoology the name DACTYLOPUSIINAE (correction of DACTYLOPODIINAE) Lang, 1936 (type-genus *Dactylopusia* Norman, 1903);

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name DACTYLOPODIINAE Lang (1936, *Further Zool. Res. Swedish Antarctic Exped.* 3(3) : 22) as an incorrect original spelling of the family-group name DACTYLOPUSIINAE.

COMMENT ON THE PROPOSED ADDITION OF *CAENOTROPUS* GÜNTHER, 1864, TO THE OFFICIAL LIST. Z.N.(S.) 1502

(see volume 19, pages 191–192)

By E. Trewavas and P. H. Greenwood (*British Museum (Natural History), London*)

We have examined all the references cited by Gery & Hoedeman. We find that the whole case is covered by Article 67(i) and (k) of the Code, and we consider that there is no escape from alternative (a) of para. 4 of Gery & Hoedeman and accordingly that the opinion of Travassos (1951), referred to in their para. 6, is correct, namely that *Caenotropus* is an objective synonym of *Chilodus* Müller & Troschel.

We cannot agree with Gery and Hoedeman that *Caenotropus* was proposed " for a specimen " identified as the species *labyrinthicus* of Kner. *Caenotropus* was proposed to replace:

" Chilodus, Müll. & Trosch. Hor. Ichth. i. p. 10
Chilodus et Microdus*, Kner, Denkschr. Acad. Wien, 1859, xvii. pp. 149, 151 "
Günther's footnote: "*Both these names are preoccupied ".

We read this to mean that *Caenotropus* was proposed to replace *Chilodus*, and, since Günther considered that the two type-species belonged to one genus, it automatically replaced *Microdus* too, or, more precisely, that there was no need to replace *Microdus*.

We would therefore not support the request to place *Caenotropus* on the Official List of Generic Names [para. 7(1)(b)] and would ask the International Commission instead:

to place *Caenotropus* Günther, 1864 (an objective synonym of *Chilodus* Müller & Troschel, 1844, wrongly considered preoccupied by *Chilodon*) on the Official Index of Rejected and Invalid Generic Names.

We would also propose in regard to para. 7(2)(b) of Gery & Hoedeman that no action be taken concerning the species *Microdus labyrinthicus* Kner unless and until someone recognizes the two nominal genera as distinct and proposes a replacement name for *Microdus* Kner.

We would add that we consider that the action of Eigenmann (1910) referred to in para. 5 of Gery & Hoedeman is ruled out by the words " despite any statement to the contrary " of Art. 67(i).

BOMOLOCHUS VON NORDMANN, 1832 (CRUSTACEA, COPEPODA: CYCLOPOIDA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S.) 1518

By W. Vervoort (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

1. In the present application attention is paid to the originally monotypic genus *Bomolochus* Von Nordmann, 1832. The species which, by this monotypy, should be considered as the type-species, *Bomolochus parvulus* Von Nordmann, 1832, is so badly characterized that it cannot be recognized, and must be considered as a doubtful species which may prove to belong to a different family of Cyclopoid copepods (TAENIACANTHIDAE). C. B. Wilson, aware of the incompleteness of Von Nordmann's description, subsequently designated *Bomolochus bellones* Burmeister, 1835, as the type of *Bomolochus*. Wilson's type designation, however, is invalid, so that the genus *Bomolochus* is virtually without a recognizable type. The rapidly increasing number of species of *Bomolochus* and the need to split up this genus into several smaller genera in my opinion make it justifiable that the International Commission on Zoological Nomenclature indicate, under the plenary powers, a properly described and easily recognizable species as the type of the genus *Bomolochus*. *Bomolochus soleae* Claus, 1864, seems the most suitable species for this purpose. The facts of the case are as follows.

2. The genus *Bomolochus* was described by Von Nordmann (*Mikrographische Beitr. Naturgesch. Wirbell. Tiere* **2** : 135) for the species *Bomolochus parvulus* (l.c. : 135), a gill parasite of the fish *Amphacanthus rivulatus* (Cuvier) (=*Siganus spinus* (L.)) from the Red Sea. The description, as published by Von Nordmann, is totally inadequate for recognition of the species and is unaccompanied by a figure. Though Von Nordmann intended to publish such a figure in the next part of his " Mikrographische Beiträge ", a figure of *Bomolochus parvulus* has never been published as the publication of " Mikrographische Beiträge " was discontinued (Von Nordmann, 1864, *Bull. Soc. Natural. Moscou*, **37** : 461, 462). The chance that *Bomolochus parvulus* will be rediscovered on the type host and will be redescribed, though small, cannot altogether be neglected. *Bomolochus parvulus* may then very well prove to be a species of the TAENIACANTHIDAE. This, if *Bomolochus parvulus* is still regarded as the type-species of *Bomolochus*, could bring about serious nomenclatural difficulties.

3. C. B. Wilson, in a revision of North American ERGASILIDAE (Copepoda: Cyclopoida), the family which included the genus *Bomolochus* at the time of Wilson's revision (1911, *Proc. U.S. nat. Mus.* **39** : 366), recognized the inadequate characterization of *Bomolochus parvulus* Von Nordmann and indicated *Bomolochus bellones* Burmeister, 1835, as the type-species. Wilson's choice of *Bomolochus bellones* as the type-species was prompted by the fact that *B. bellones* was the first species to be described after Von Nordmann's introduction of *Bomolochus parvulus* and by the more detailed description of Burmeister's

species. Wilson's type indication, however, has never been authorised and consequently it is invalid.

4. Since the establishment of the genus *Bomolochus* by Von Nordmann in 1832 the number of species has gradually increased, especially during the last 40 years, so that at present about 50 species of *Bomolochus* are known. As these species show heterogeneity in a number of characters it seems desirable to distribute the many species hitherto referred to one genus, *Bomolochus* Von Nordmann, 1832, over several smaller genera and this indeed has been attempted several times. Because a recognizable type-species of *Bomolochus* is still missing, no satisfactory regrouping has so far been achieved and the indication of a new type-species is imperative. *Bomolochus bellones* Burmeister (1835, *Nova Acta Leop. Carol.* **17**(1) : 298, 328, pl. 24, figs. 1–6) is unsuitable to occupy this position. The peculiar antennular structure gives this species, and some closely allied forms, an isolated position amongst the remaining BOMOLOCHIDAE. It seems better, therefore, to select as the type-species a *Bomolochus* with less aberrant antennular structure, in accordance with the generally accepted ideas of this genus. *Bomolochus soleae* Claus (1864, *Zeitschr. Wiss. Zool.* **14** : 374, pl. 35, figs. 16–20, pl. 36, fig. 28) fulfils these requirements. The antennular structure is as found in the majority of the species of *Bomolochus* ; moreover, it was recently completely redescribed by Stock (1953, *Beaufortia* (24) : 3, figs. 1–20). The indication of *Bomolochus soleae* as the type-species of *Bomolochus* Von Nordmann, 1832, will greatly facilitate the much needed establishment of new genera of BOMOLOCHIDAE.

5. The genus *Bomolochus* is currently considered as the type-genus of the family BOMOLOCHIDAE Claus (1875, *Zeitschr. Wiss. Zool.* **25** : 340).

6. Summarizing, the International Commission on Zoological Nomenclature is now asked :

(1) to use its plenary powers :
    (a) to set aside all type selections or indications for the genus *Bomolochus* Von Nordmann, 1832, made prior to the proposed Ruling, and having done so
    (b) to designate as the type-species of that genus the species *Bomolochus soleae* Claus, 1864 ;
(2) to place on the Official List of Generic Names in Zoology the name *Bomolochus* Von Nordmann, 1832 (gender : masculine), type-species designated under the plenary powers in (1)(b) above, *Bomolochus soleae* Claus, 1864 ;
(3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Bomolchus* Von Nordmann (1832 : 135), an erroneous spelling of *Bomolochus* Von Nordmann, 1832;
(4) to place on the Official List of Specific Names in Zoology the name *soleae* Claus, 1864, as published in the binomen *Bomolochus soleae*, (type-species of the genus *Bomolochus* Von Nordmann, 1832) ;
(5) to place on the Official List of Family Group Names in Zoology the name BOMOLOCHIDAE Claus, 1875, type-genus *Bomolochus* Von Nordmann, 1832.

CANDACIA DANA, 1846 (CRUSTACEA : COPEPODA) : PROPOSED PRESERVATION UNDER THE PLENARY POWERS AND DESIGNATION OF A TYPE-SPECIES FOR THE GENUS IN ACCORDANCE WITH COMMON USAGE. Z.N.(S.) 1520

By G. D. Grice (*Woods Hole Oceanographic Institution, Woods Hole, Mass., U.S.A.*), and W. Vervoort (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

1. The purpose of the present application is to request the International Commission on Zoological Nomenclature to validate the (well-known and widely used) generic name *Candacia* Dana, 1846. There are two factors which endanger the status of the name *Candacia* as used at present. The first of these is that the species which was validly selected as the type of the genus *Candacia* is a doubtful species which, though it belongs to the genus *Candacia*, cannot be properly identified. Secondly there exists a possible senior synonym of the generic name *Candacia*. In our opinion the use of the plenary powers is perfectly justified here to preserve the name *Candacia* in its currently used sense and in accordance with its usage for more than 60 years.

2. After having introduced the generic name *Candacia* in 1846 (*Amer. J. Sci. Arts* (2) **1** : 228, also *Ann. Mag. nat. Hist.* **18** : 184) without referring to any included species, Dana later on (1849, *Proc. Amer. Acad. Arts Sci.* **2** : 22 et seq.) referred 6 species to this genus which he then spelled *Candace*. As in Dana's (1849) publication there is no indication that this change of spelling is intentional, *Candace* Dana, 1849, must be considered an erroneous spelling of *Candacia* Dana, 1846. The first type selection for the genus is, as far as is known to us, that by Fowler (1912, *Ann. Rep. New Jersey State Mus.* (1911) : 492), who selected the first of Dana's (1849) species, *Candace ornata*, to be the type-species of the genus. Giesbrecht (1892, *Fauna u. Flora d. Golfes v. Neapel* **19** : 425, 426) had previously pointed out that the description of *Candace ornata* is based on an immature male and accordingly he considered it a doubtful species (" Zweifelhafte Species ", l.c. : 425). *Candace ornata* has never been redescribed and except for a record of it by Lubbock (1860, *Trans. Linn. Soc. Lond.* **23** : 180) and reference to it in synonymies by Giesbrecht (1892 : 425) and Giesbrecht and Schmeil (1898, *Das Tierreich* (6) : 131) there are no other records of it in the zoological literature. The Commission is therefore asked to set aside Fowler's type selection or any other type selection or indication and to indicate, under its plenary powers, the species *Candace pachydactyla* Dana, 1849, as the type-species of the genus *Candacia* Dana, 1846. *Candace pachydactyla* is the second of the 6 species which were referred by Dana (1849) to *Candace* (=*Candacia*). The description of *Candace pachydactyla* Dana (1849 : 23) is based on the male sex, but Dana later on (1852, 1855 ; Crustacea, in : *U.S. Exploring Expedition during the years* 1838–1842, *under the command of Charles Wilkes* **13** : 1113 (1852), pl. 78, figs. 2–4 (1855)) included a description and figures of the adult female. Moreover, the species is well

known, widely distributed in warm waters of both Pacific and Atlantic Oceans and is very easily recognised among the species of *Candacia*.

3. A second threat which endangers the generic name *Candacia* Dana, 1846, is the existence of a synonym, *Ifionyx* Krøyer, the date of publication of which is unknown, but which may have priority over *Candacia*. The genera *Ifionyx* Krøyer and *Candacia* Dana are clearly but subjectively synonymous, as was first recognised by Boeck (1865, *Forhandl. Vidensk.-Selsk. Christiania* (1864) : 234). Boeck placed Krøyer's genus in the synonymy of *Candace* Dana, 1846, being followed in this respect by Giesbrecht (1892 : 67, 423). Giesbrecht and Schmeil (1898 : 126) correctly substituted the spelling *Candacia* Dana, 1846, for *Candace* Dana, 1849. The generic name *Ifionyx* is first used in the binomen *Ifionyx typicus* by Krøyer on one of the plates (pl. 42) illustrating the zoological part of " Voyages de la Commission Scientifique du Nord en Scandinavie, en Laponie, au Spitzberg et aux Feroë, pendant les années 1838, 1839, et 1840, sur la corvette *La Recherche* commandée par M. Fabure, lieutenant de vaisseau, publiés par ordre du roi sous la direction de M. Paul Gaimard ". The text belonging to Krøyer's above-mentioned Crustacean plates of Gaimard's work was never published and the date of publication of the plate could not be ascertained by us. *Ifionyx typicus* was described in detail by Krøyer in 1849 (*Naturhist. Tidskr., Kjøbenhavn* (2) **2** : 582, pl. 6, figs. 17–21) ; in this paper a reference was made to plate 42 mentioned above so that it seems likely that this plate (as well as plates 41 and 43 that also illustrate copepods) was published before 1849. Some authors (Stebbing, 1888, *Rep. Voy. Challenger* (Zool.) **29** : 216 ; Sund, 1913, *Bergens Mus. Aarb.* (1912) (6) : 14) cite, be it in Stebbing's case with some doubt, the date of publication of Krøyer's plates as 1846, but there seems no entirely positive evidence of the actual date of publication. The last use of the name *Ifionyx* in primary zoological literature is, as far as is known to us, that by Fowler (1912 : 492), which is exactly 50 years ago so that the Statute of Limitation does not yet apply here. In order to safeguard the name *Candacia* the Commission is now asked to suppress under their plenary powers the generic name *Ifionyx* which, wherever used in the zoological literature of the last 100 years, has only been cited as a junior synonym.

4. In conjunction with the above, it is necessary to consider also the status of *Ifionyx typicus* Krøyer, a species which is generally considered to be a subjective synonym of *Candace pachydactyla* Dana, 1849. The chances that the specific name *typicus* Krøyer is older than *pachydactyla* Dana, 1849, are still greater than that the generic name *Ifionyx* Krøyer is older than *Candacia* Dana, 1846. The specific name *pachydactyla* Dana has practically always been used for the species and is so deeply entrenched in the zoological literature that its substitution by the name *typicus* Krøyer, which is wholly unfamiliar to most zoologists, would create a serious nomenclatural instability.

5. The genus *Candacia* Dana, 1846, is currently considered to be the type-genus of the family CANDACIIDAE Giesbrecht (1892 : 67).

6. Summarizing, the International Commission on Zoological Nomenclature is now asked :

(1) to use its plenary powers :

- (a) to set aside all type selections or indications for the genus *Candacia* Dana, 1846, made prior to the proposed Ruling, and having done so
- (b) to designate as the type-species of that genus the species *Candace pachydactyla* Dana, 1849;
- (c) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy:
  - (i) the generic name *Ifionyx* Krøyer, 1846 (?), and
  - (ii) the specific name *typicus* Krøyer, 1846 (?) as published in the binomen *Ifionyx typicus*;

(2) to place on the Official List of Generic Names in Zoology the name *Candacia* Dana, 1846 (gender: feminine), type-species designated under the plenary powers in (1)(b) above: *Candace pachydactyla* Dana, 1849;

(3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:

- (a) *Candace* Dana, 1849, an erroneous spelling for *Candacia* Dana, 1846;
- (b) *Ifionyx* Krøyer, 1846 (?), a name suppressed under the plenary powers in (1) (c)(i) above;

(4) to place on the Official List of Specific Names in Zoology the name *pachydactyla* Dana, 1849, as published in the binomen *Candace pachydactyla* (type-species of the genus *Candacia* Dana, 1846);

(5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *typicus* Krøyer, 1846 (?) as published in the binomen *Ifionyx typicus*, a name suppressed under the plenary powers in (1)(c)(ii) above;

(6) to place on the Official List of Family Group Names in Zoology the name CANDACIIDAE (correction by Giesbrecht and Schmeil, 1898: 126, of CANDACIDAE) ,Giesbrecht, 1892 (type-genus *Candacia* Dana, 1846);

(7) to place on the Official Index of Rejected and Invalid Family Group Names in Zoology the name CANDACIDAE Giesbrecht, 1892 (type-genus *Candacia* Dana, 1846) an incorrect original spelling for CANDACIIDAE Giesbrecht, 1892.

NAIADITES ANGULATUS DAWSON, 1860 (CLASS LAMELLIBRANCHIA): REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES IN ACCORDANCE WITH ACCUSTOMED USAGE. Z.N.(S.) 1525

By M. J. Rogers (21, *Canynge Square*, *Clifton*, *Bristol*, 8, *England*)

The purpose of the present application is to stabilise the interpretation of the nominal species *Naiadites angulata* (*sic* ; *Naiadites* is masculine) Dawson, 1860 in the sense in which it has been used for at least the last sixty-five years. The case is one in which it is impossible to identify the original type-material ; it is equally impossible to demonstrate its loss or destruction sufficiently to justify the designation of a neotype. This species is diagnostic of the Canso Group of the Upper Carboniferous rocks of Nova Scotia where it is abundant in certain regions. It is similar to species from the Pictou Group of the Upper Carboniferous of Nova Scotia and to species from the Ammanian of Great Britain. It is therefore desirable to stabilise the interpretation of *Naiadites angulatus* Dawson in order to facilitate the identification of faunas of the Canso Group and the comparison of homotaxially equivalent faunas in Europe. The facts of the case are stated below.

2. J. W. Dawson (1860, *Supplement to 'Acadian Geology'* : 45) proposed the name *Naiadites angulata* for a species of his new genus *Naiadites*. A description was given as follows : " Similar in general form and proportions to No. 4 [*N. arenaceus*], but with more prominent beaks, a straight hinge-line and an undefined ridge running backward from the umbo, and causing the posterior extremity to present an angular outline. Lower Coal Formation at Parrsborough ". [Nova Scotia.]

Upper Carboniferous rocks at Parrsborough are now referred to the Canso and Riversdale Groups. Field-collecting by myself and W. A. Bell of the Geological Survey of Canada shows that the lamellibranch faunas of these two Groups are distinct, the former being characterised by the genus *Carbonicola* (?), whilst the higher Riversdale Group contains *Naiadites* and *Curvirimula* (Bell, 1944, *Geol. Surv. Canada, Mem.* 238 : 23, 25). It is probable therefore, that the original material of *Naiadites angulatus* Dawson came from the Canso Group at Parrsborough rather than from the Riversdale Group.

3. Dawson (1868, *Acadian Geology* : 204–205, text-fig. 46) repeated the original description and added a figure.

4. Wheelton Hind (1894, *Quart. J. Geol. Soc. Lond.* **50** : 441, Pl. XX, fig. 14) figured as $\left.\begin{array}{l}(\textit{Carbonicola}\text{ (McCoy))}\\(\textit{Anthracosia}\text{ (King))}\end{array}\right\}$ *angulata* (Dawson) a fossil sent, with others, to him by Dawson for comment. Hind's figure certainly represents Redpath, Museum specimen No. 3132 from Mabou, Cape Breton Island, Nova Scotia, where the Canso Group is exposed, because the extra fossil included in the figure can be recognised in the matrix of No. 3132.

5. In the " Explanation of Plate XX " Hind (1894) gave the Coal Measures

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at South Joggins as the horizon and locality of all the shells he illustrated, although four of those he figured did not come from that locality. He also indicated that five were returned to Dawson, these now being located in the Redpath Museum. Hind stated that the remainder, presumably including that figured by himself as *Carbonicola angulata*, were presented to him by Dawson. This reference of Hind's is the only specific record of the transfer of Coal Measure shells between Montreal and London.

6. From (5) it seems that Hind did not always accurately record the localities of the fossils he figured, and likewise it is possible that he omitted to note the return to Dawson of the specimen he figured as Pl. XX, fig. 14 (Redpath Museum No. 3132). There is no record of a *figured* specimen of *Carbonicola angulata* (Dawson) in the British Museum, where the *only* fossil labelled *C. angulata* from Nova Scotia is imperfectly exposed. There are no fossils labelled *Anthracosia angulata* (Dawson).

7. The only specimen labelled *C. angulata* (Dawson) in the Redpath Museum is No. 3132. This is the only specimen that was referred to *C. angulata* (Dawson) by Hind (and presumptively by Dawson).

8. Redpath Museum specimen No. 3132 cannot certainly be recognised as the fossil figured by Dawson in 1868 as *Naiadites angulata* : his drawings are never accurate, but it is possible that his figure represents R.M.3132. However, according to the label it came from Mabou, and not from the locality cited in the original description.

9. Although, *fide* the label, it did not come from the type-locality, R.M.3132 was almost certainly identified by Dawson, and was possibly figured by him in 1868. It has been on display in the Redpath Museum for many years as the type of *Carbonicola angulata* (Dawson).

10. I am at present engaged on the revision of the North American Upper Carboniferous non-marine Lamellibranchia and I wish to interpret *Naiadites angulatus* Dawson in accordance with accustomed usage.

11. I therefore ask the International Commission :

(1) to give a ruling that the nominal species *Naiadites angulatus* Dawson, 1860, is to be interpreted by reference to specimen No. 3132 in the Redpath Museum, Montreal, Canada ;

(2) to place the specific name *angulatus* Dawson (as published in the binomen *Naiadites angulata* (*sic.*) (now referred to the genus *Carbonicola* (?) McCoy, 1855) on the Official List of Specific Names in Zoology.

SUPPORT FOR THE REQUEST OF MRS. M. J. ROGERS FOR A RULING ON THE INTERPRETATION OF *NAIADITES ANGULATUS* DAWSON, 1860

By John Weir (*The University, Glasgow*)

The issue has been confused by Wheelton Hind (1894, *Mon. Palaeontographical Soc.* : 75) who listed *Naiadites angulata* (*sic*) Dawson, 1860 as a synonym of *Cardinia angulata* de Ryckholt, 1852 (*Mélanges paléontologiques* ", *Mém. Acad. roy. Belg.* **24** : 104, pl. 6,* figs. 10, 11), a species not mentioned by Dawson and of which he was probably unaware. Search has been made for de Ryckholt's original material, but without success (Dr. A. Pastiels *in litt.* 24th Nov. 1961). The provenance cited by de Ryckholt (" schiste houiller des environs de Visé) is too vague to be helpful in any search for new material of *C. angulata* de R. Carboniferous rocks in an area of 10 km. around Visé (district of Liège, Belgium) range from Lower Carboniferous (Viséan) to the lower part of the Westphalian, sediments of the Lenisulcata Zone, according to Dr. Pastiels, occupying the greater part of the area. De Ryckholt's figures may well be idealisations of a polymorph species of this zone of the lower Westphalian, but are inadequate for identifying the species or its genus.

Hind based his interpretation of *Cardinia angulata* de R. on the specimens from Lancashire, England, which he figured in his Monograph on *Carbonicola* etc. (*op. cit.*, 1894 : pl. 11, figs. 3–5 ; Manchester Mus. No. 585, Brit. Mus. (Nat. Hist.) No. 46866). This interpretation was adopted by A. Wood in recording *Carbonicola* cf. *angulata* (de Ryckholt) " as figured by Hind " from the North Wales Coalfield (1937, *Quart. J. Geol. Soc. London* **93** : 6 and text-fig. 2c), and in 1929 W. B. Wright compared his *Carbonicola carissima* with *C. angulata* Hind, without citing de Ryckholt.

Pruvost, however, in 1919 and again in 1930 regarded *Cardinia angulata* as synonymous with *Pachyodon similis* Brown, 1843, expressing also on the latter occasion the opinion that *Naiadites angulata* Dawson, 1868 and *Carbonicola angulata* Hind, 1894 were likewise synonyms of *P. similis* (*Mém. Mus. roy. Sci. nat. Belg.* : 225, footnote, and 240). Chernyschev (1931, *Trans. Geol. Surv. U.S.S.R.* **72** : pl. 2, figs. 37–39) figured some small shells from the Donetz Basin as *Carbonicola angulata* de Ryckholt, 1850 (*sic*). These figures (from photographs) differ in some respects from de Ryckholt's drawings and the author quotes as synonyms *Carbonicola angulata* Hind, 1894, and *C. similis* Pruvost, 1913 and 1919. Thus Chernyschev's contribution is not helpful in elucidating the problem of *Cardinia angulata* de Ryckholt.

Finally, the compilative work of Renier, Stockmans, Demanet and Van Straelen (1938, " Flore et faune houillères de la Belgique ") makes no mention of *Cardinia angulata* de Ryckholt. Obviously the name has been little used because of uncertainty, and diversity of opinion, regarding the identity of the species it was intended to designate. In the absence of types it could not be otherwise, as the original figures are equivocal. The name *Cardinia angulata* de Ryckholt, 1852, should therefore be suppressed.† *Naiadites angulatus* Dawson, 1860, on the other hand, was well figured by Wheelton Hind in another publication of 1894 (as cited by Mrs. Rogers) *from a specimen supplied by Dawson himself*, No. 3132 in the Redpath Museum, Montreal, the only one there labelled " *Carbonicola angulata* (Dawson) ". This specimen forms the only possible basis for the interpretation of the nominal species *Naiadites angulatus* Dawson, 1860, and I therefore support Mrs. Rogers's request.

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* On p. 104 de Ryckhot's heading erroneously cites pl. 4.

† *Carbonicola angulata* (de Ryckholt (?)) Hind, 1894, could then either be regarded as a synonym of *Naiadites angulatus* Dawson, 1860, or more cautiously, could be inscribed " *Carbonicola* " cf. *angulata* (Dawson, 1860), or *Carbonicola* cf. *declivis* Trueman and Weir.

By R. M. C. Eagar (*The Manchester Museum*)

Shells referable to the nominal species *Naiadites angulatus* Dawson, 1860, form a major element of the fauna of the Canso Group of the Upper Carboniferous rocks of Nova Scotia and forms comparable with it occur also in the Pictou Group of these measures. It is highly desirable that these Upper Carboniferous faunas should be described and compared with those of Europe. The stabilisation of *Naiadites angulatus* Dawson in accordance with accustomed usage would considerably facilitate this work.

The facts of the case are fully stated by Mrs. Rogers and in Dr. Weir's supporting note. Over the matter of Para. (6) of the Request, from my experience in examining other specimens figured by Hind, for instance, in his Monograph on *Carbonicola*, *Anthracomya* and *Naiadites* (*Palaeont. Soc.* 1894–6), I can confirm that Hind did not always correctly record the horizons and localities of Coal Measures material.

My examination of the Manchester Museum specimens W. 585a, b (*ibid.*, 1894, pl. 11, figs. 3, 4 respectively) confirms the opinion expressed by Dr. Weir in his footnote on p. 2.

Since the Redpath Museum specimen No. 3132 forms the only possible basis for the interpretation of the nominal species *Naiadites angulatus* Dawson, 1860, I add my support to Mrs. Rogers' Request that the species be interpreted by reference to this specimen and that the specific name *angulatus* Dawson, 1860 be placed on the Official List of Specific Names in Zoology.

FLEXICALYMENE SHIRLEY, 1936 (CLASS TRILOBITA); PROPOSAL TO PLACE ON THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY. Z.N.(S.) 1529

By H. B. Whittington, D.Sc. (*Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts U.S.A.*)

In error in the Treatise on Invertebrate Paleontology (: 452) I listed the name *Orimops* Rafinesque, 1832 (: 72) as a synonym of *Flexicalymene* Shirley, 1936 (: 395). *Orimops* should have been listed as an unrecognisable genus, and the present application is intended to ensure the stability of the name *Flexicalymene*.

2. The type-species of *Flexicalymene* is *Calymene blumenbachii* var. *caractaci* Salter, 1865 (: 96), and was redescribed by Shirley (1931 : 25–28). The type-specimens, no. 47698, are preserved on a slab in the Geological Survey Museum, London. The name *Flexicalymene* has been widely accepted and is in current use.

3. The type-species of *Orimops* is *Calymene callicephala* Green, 1832. A brief diagnosis (1832a : 558) and a longer account (1832b : 30–31) of the type were given by Green, without an illustration, but with a locality. Casts of the type were circulated with Green's monograph (1832b) and are preserved in many museums. Green's original specimens have long been considered lost (Foerste, 1910 : 83) and Dr. Horace G. Richards, of the Academy of Natural Sciences of Philadelphia, informs me (personal communication, March 1962) that they " have been unable to locate any of them, even those which are stated as belonging to the Academy ; so I am afraid that these originals are lost ". Green's locality " Hampshire, Virginia " is vague, and was interpreted by Foerste (1910 : 83) as being one of the north-eastern counties of West Virginia. No new material has been forthcoming, and in the absence of this or the type, there cannot be a taxon to which the name *O. callicephala* is applicable. Paleontologists since Bassler (1915 : 166) have agreed in regarding the species as unrecognisable and the name has not been used. It follows that the genus *Orimops* is unrecognisable, and cannot be regarded, as Fisher (1957 : 18, 32) did, as a senior synonym of *Flexicalymene*.

4. If the discovery of new material makes possible the recognition of *Orimops callicephala*, then it may become evident that *Orimops* is a senior synonym of *Flexicalymene*. In this event the question of whether or not *Orimops* is to be considered a *nomen oblitum* may be referred to the Commission. In the existing circumstance I ask that the International Commission on Zoological Nomenclature should :

(a) place the name *Flexicalymene* Shirley, 1936 (gender : feminine), type-species by original designation *Calymene caractaci* Salter, 1865, on the Official List of Generic Names in Zoology ;

(b) place the undermentioned name on the Official List of Specific Names in Zoology : *caractaci* Salter, 1865, as published in the combination

Calymene blumenbachii var. *caractaci* (specific name of type-species of *Flexicalymene* Shirley, 1936).

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PROPOSED RECONSIDERATION OF DIRECTION 75. Z.N.(S.) 1509

By Guy Mountfort (*Honorary Secretary, British Ornithologists' Union.*)

I am instructed by the Council of the British Ornithologists' Union to submit a request that the International Commission on Zoological Nomenclature will reconsider its Direction No. 75 of 1957 that the familial name in the Class Aves formed from *Podiceps* Latham, 1787 should be spelt " PODICIPITIDAE ".

Reasons why the spelling " PODICIPEDIDAE " should be recognized as more correctly reflecting the etymology have since been published by Thomson (A.L.), 1960, 1961 (*Ibid* **102** : 333 ; **103** : 296) and Wetmore (A.), 1960 (*Smithsonian Misc. Coll.* 139(11) : 1–37, at pp. 5–6 and 24). They point out that the International Commission and its classical adviser did not have before them a consideration which had for long been well known to ornithologists (although unfortunately not brought to notice at the proper time).

Latham's generic name *Podiceps*, already used as a specific name by Linnaeus in the same group, was in fact a corruption of a pre-Linnaean name *Podicipes* (Willughby 1676 and others). It seems clear that the latter was derived from *podex* (*podicis*) and *pes* (*pedis*) and was intended to mean " vent-footed ", from the legs being placed so far back on the body. This sense was already inherent in an old vernacular name " Arsfoot " or " Arse-foot " (Dutch *Arsvoote*) which was used by Willughby and was mentioned by Latham two years before he erected the generic name. Strong comment on the corrupt spelling of "*Podiceps*" was made especially by Gloger 1854, and this led some (e.g., Saunders 1889) into the impropriety of changing it back to " *Podicipes* ". Among authorities who have used the familial name in the form " Podicipedidae " have been Newton 1896 (*Dictionary of Birds*), Ogilvie-Grant 1898 (*Catalogue of Birds*) and the American Ornithologists' Union 1957 (*Check-list of North American Birds* 5th ed.) ; the usage was thus well established.

A ruling was badly needed, because no less than six forms of the familial name had appeared in the literature. The confusion has, however, not been ended. Some authors are treating the Direction as unacceptable ; others accept it under protest but use their freedom to spell the ordinal name (not subject to the Rules) " Podicipediformes " or " Podicipedes ". The present submission is that stability can be achieved, with consistency between familial and ordinal names, only by a reconsideration of the Direction in the light of the information now brought forward.

[The present note is published as notice to the Commission of the submission of this proposal to modify Direction 75 at the next Zoological Congress in Washington, 1963. W. E. China.]

By A. Landsborough Thomson

As regards the generic name " *Podiceps* Latham 1787 ", my submission is that the circumstantial evidence establishes an overwhelming probability that the proposer intended to give a scientific name expressing the sense of the vernacular name " arsefoot " and its customary Latin equivalent " podicipes " (i.e. from *podex* and *pes*).

(1) The name " arsefoot " was well known from at least the seventeenth century ; it was known to Latham, who mentioned it in 1785.

(2) Early authors writing in Latin, such as Willughby and Ray, used " podicipes " as an equivalent of " arsefoot ".

(3) Catesby wrote about the Pied-billed Grebe (of North America) under the heading " *Prodicipes Minor* Rostro vario ", but gave the spelling of the first word as " *Podicipes* " in the legend of the facing plate—so that the intruding " r " can presumably be discounted as a misprint.

(4) In 1758 Linnaeus called the Pied-billed Grebe " *Colymbus Podiceps* " ; Catesby's account was his sole basis, and in citing Catesby he misquoted by writing " Podiceps minor, rostro vario ".

(5) In 1787 Latham proposed the genus " *Podiceps* ", to include several species ; he apparently based the name on Linnaeus, as he refers to " Colymbus Lin.", but as he was listing only British birds he does not mention the Pied-billed Grebe.

(6) The Pied-billed Grebe, now known as " *Podilymbus podiceps* (Linnaeus), is a species without any " podium " or similar head adornment. The same is true of some of the species that were included in *Podiceps* by Latham, who did not designate a type-species—the choice of *P. cristatus* came later.

(7) That " *Podiceps* " was a corruption of " *Podicipes* " was recognised by authors after Latham, from [Oken] 1839 onwards, although it seems to have been largely forgotten during the past half-century.

(Such of the references as I have not checked personally are fide Wetmore, A., 1960, *Smithsonian Misc. Coll.* **139** : 5–6).

From the foregoing, it seems difficult to escape the conclusion that Latham based his generic name " *Podiceps* " on an identical specific name given by Linnaeus to a species with no " podium " ; that Linnaeus based his specific name " *Podiceps* " on Catesby's name " *Podicipes* " ; and that Catesby was following the early authors, writing in Latin, who used " podicipes " as the equivalent of " arsefoot ". This is apart from the strong probability that Latham himself identified " *Podiceps* " in meaning with " arsefoot ".

Gloger in 1854 described " *Podiceps* " as an " unintelligently and unintelligibly corrupted word " (my translation). We are stuck with it—but need we be stuck with a familial name that implies a meaning new to ornithology ?

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The Official Organ of

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NATURAL HISTORY

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 20, Part 3 (pp. 161–240, 1 plate) *26th April*, 1963

LETTER FROM CHAIRMAN OF THE INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE TO THE PRESIDENT OF THE COMMISSION ON THE ACTION TAKEN BY THE TRUST SINCE THE LONDON CONGRESS, 1958

I have read with great interest your open letter to the By-Laws Committee in *Bull. zool. Nomencl.* **19**, part 6.

I believe that it would be valuable for members of the Commission and others, when they are considering these constitutional matters, to have an up-to-date account of the way in which at present the work of the Commission is financed.

The International Trust for Zoological Nomenclature is a non-profit making body incorporated under British law with the sole purposes of supporting the operations of the Commission and for the benefit of zoological nomenclature. The Trust, in accordance with law, is resident in Britain and has a British Chairman and Managing Director. It has in addition, one Belgian, one Danish, one United States and two British members.

There are two chief recurrent ways in which the Trust supports the operations of the Commission. The first is by financing and publishing on behalf of the Commission the *Bulletin of Zoological Nomenclature*, the various Lists and Indices of Accepted and Rejected Names and the official version of the Code. The second is by paying the salaries of the staff of the Commission's office and the day to day expenses of the work of the Commission.

Since the last International Zoological Congress a number of changes have been made in the form and pricing of the *Bulletin*, as a result of consideration of criticisms and opinions expressed during and after the London Congress. As to form, the *Bulletin* now comprises not only applications by zoologists and comments thereon, but also the decisions of the Commission, formerly published separately in the " Opinions and Declarations " series. The amalgamation of the two series, which was approved by the Commissioners, will, it is hoped and expected, have been for the convenience of Commissioners and other zoologists and will simplify the task of reference. At the same time the language and presentation of cases and decisions have been shortened and simplified and the repetition entailed by having separate series for applications and for decisions has been obviated.

As to pricing it must be remembered that the income earned by sale of publications is the only regular source of finance for the operations of the Commission. The Trust has aimed in the last few years at stabilising the cost of publications to subscribers, giving them more material for their money and increasing the number of subscribers. At present the cost of the *Bulletin* to subscribers is £18 ($54) a year, for approximately 480 pages. There are 241 subscribers at the moment.

By means of this income and by obtaining favourable conditions for housing the Commission's office in the British Museum (Natural History) and for the storage of stocks of publications elsewhere, the Trust has been able to finance the Commission's office and publications and at the same time rebuild to a prudent level (approximately £10,000) the reserves which were much depleted to meet the requirements of the Colloquium at the London Congress and the preparation and printing of the new Code.

The scientific staff of the Commission's office have reduced to reasonable proportions the backlog of business awaiting the Commission's attention; many cases of course solved themselves once the new Rules were issued. There is now little delay in the publication of zoologists' applications, provided that they are adequately prepared.

The new Code, in accordance with the decision of the London Congress, is being sold at a modest price designed to cover merely the costs of printing and publication. Over 3,650 copies have been sold. The Trust has been informed of the publication of versions in Czechoslovakia, Germany, Mexico and Spain, besides the official French and English texts.

The financial position has thus been safeguarded and the Trust believes that available resources are being efficiently used to support the Commission in the interests of zoologists generally. A more assured income, with less burden on individual institutions, could be obtained by a significant increase in the number of subscribers and in view of the essential nature and utility of the work of the Commission, it is justifiable to expect that a great many more zoological and palaeontological institutions than at present would contribute by becoming subscribers. You may think it right that individual Commissioners should be invited to do all that they can to this end.

The Trustees are confident that under the scientific direction of Dr. China the current work of the Commission will continue to be satisfactorily dealt with and their decisions published in convenient form without undue delay, and that the arrears accrued before 1958 can be disposed of on lines which you yourself had in mind.

I propose to send a copy of this letter to each Commissioner and, on the assumption that you see no objection, to arrange for its publication in an early issue of the *Bulletin*.

HURCOMB
Chairman
International Trust for
Zoological Nomenclature

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the Bulletin :—

(1) Validation of *Pemphigus* Hartig, 1839 (Insecta, Hemiptera). Z.N.(S.) 431
(2) Validation of *Bironella gracilis* Theobald, 1905 (Insecta, Diptera). Z.N.(S.) 1244
(3) Validation of *Pseudotriton duryi* Weller, 1930 (Amphibia). Z.N.(S.) 1516
(4) Designation of a type-species for *Pisania* Bivona, 1832 (Gastropoda). Z.N.(S.) 1521
(5) Designation of a type-species for *Ctenophthalmus* Kolenati, 1856 (Insecta, Siphonaptera). Z.N.(S.) 1523
(6) Designation of a type-species for *Ceratomya* Sandberger, 1864 (Bivalvia). Z.N.(S.) 1526
(7) Validation of *Xylocopa* Latreille, [1802–1803] (Insecta, Hymenoptera). Z.N.(S.) 1527
(8) Validation of *Ablabes chinensis* Günther, 1889 (Reptilia). Z.N.(S.) 1532
(9) Validation of *Dryadophis* Stuart, 1939 (Reptilia). Z.N.(S.) 1533.
(10) Validation of *Coluber subocularis* Brown, 1901 (Reptilia). Z.N.(S.) 1534
(11) Validation of *Spilotes melanurus* Duméril, Bibron & Duméril, 1854 (Reptilia). Z.N.(S.) 1535
(12) Validation of emendation to *Rhynchium* of *Rygchium* Spinola, 1806 (Insecta, Hymenoptera). Z.N.(S.) 1540
(13) Suppression of *Eulachnus* Del Guercio, 1909 (Insecta, Hemiptera). Z.N.(S.) 1541

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
22 *February* 1963.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

COMMENTS ON THE PROPOSED VALIDATION OF MÖRCH'S 1852–1853 CATALOGUE

(see volume 19, pages 254–256)

By Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen*)

In order to make sure for myself both as a malacologist and as a Commissioner I have studied very carefully the proposal of Mr. Soot-Ryen to validate the Yoldi catalogue published by O. A. L. Mörch in 1852–1853. It is admittedly a pure sales catalogue and does not fit as a scientific paper for publication of new names. As indicated by Mr. Soot-Ryen, there are a number of generic names now in general use, as exemplified in the number quoted as valid by Thiele (*Handb. Moll. Kunde* 1, 1931 and 2, 1935). Of the said names, 10 are full genera in Thiele's book (2 monotypic), 15 cover subgenera (3 monotypic), 18 for sections (3 monotypic), and 8 are recognized as available without being incorporated in the system used by Thiele. One name was not mentioned at all. Apparently, there is every reason to grant availability to these names, but it may be well to abstain for the moment from placing them on the Official List—except the name *Pseudamussium*, about which Mr. Soot-Ryen has worked out the necessary details.

By Myra Keen (*Stanford University, Stanford, California, U.S.A.*)

I wish to support the petition by Dr. T. Soot-Ryen (Z.N.(S.) 1501) for recognition of the *Catalogus Conchyliorum* of Mörch, 1852–53, as a valid source of names and for the designation of a type-species for *Pseudamussium* as *Pecten septemradiatus* Müller, 1776. This is in harmony with most current usage and would serve as guidance for the treatment of other of Mörch's generic and specific names.

COMMENT ON THE NAME OF THE TYPE-SPECIES OF *XENOPHORA*. Z.N.(S.) 1483

By Myra Keen (*Stanford University, Stanford, California, U.S.A.*)

It may now be too late to comment upon the petition of Dr. Katherine Palmer concerning Xenophoridae (Z.N.(S.) 1483). I am in sympathy with the purpose of the petition but am not convinced that the name *Turbo trochiformis* Born, 1778 should be regarded as the earliest valid name for the type-species of *Xenophora* and placed on the Official List. Not only, as pointed out by R. Robertson (*Bull. zool. Nomencl.* **19** : 231), is this specific name a *nomen oblitum* but one must either regard it as composite or as having as its only objective indication a figure of a *Calyptraea*, a genus in a wholly different family. Validation of the latter would jeopardize *Patella trochiformis* Gmelin, 1791, currently used (either as *Calyptraea* or as *Trochita trochiformis*) for a Peruvian species. Validation, by use of the plenary powers, of the specific epithet *trochiformis* for the *Xenophora* would displace the well-known and long-used *X. conchyliophorus* (Born, 1780). One can argue that Born himself recognized the composite nature of the 1778 proposal and in 1780, as first reviser, chose to bestow a new name on the *Xenophora*. At this date, however, it seems in the interest of stability to inter *Turbo trochiformis* permanently by placing it on the Official Index of Rejected specific names rather than to attempt to resurrect it.

Zoologische Nomenklatur

ANTRAG

AN DEN

XVI INTERNATIONALEN ZOOLOGEN-KONGRESS

Washington, 21–27 August 1963

Der XIV Internationale Kongress von Kopenhagen beschloss, " . . . that, in addition to the preparation of English and French texts . . . steps should be taken by the International Trust without delay to secure the preparation of authorized translations into other languages . . . " [Copenhagen Decisions on Zoological Nomenclature : 101.]

Im Auftrage der deutschsprachigen Zoologen und Paläontologen wurde inzwischen ein Deutscher Text der Regeln formuliert und am 28.v.1962 veröffentlicht (mit Genehmigung des International Trust vom 16.ii.1962). Der jetzige Deutsche Text stimmt bis in letzte Einzelheiten mit der französischen und der englischen Fassung überein. Er wurde von den deutschsprachigen Mitgliedern der Internationalen Kommission für Zoologische Nomenklatur (E. M. Hering, W. Kühnelt, R. Mertens) geprüft und gebilligt ; weiterhin hat der Text die Billigung und Anerkennung der folgenden Gesellschaften gefunden :

DEUTSCHE ZOOLOGISCHE GESELLSCHAFT, PALÄONTOLOGISCHE GESELLSCHAFT,
SENCKENBERGISCHE NATURFORSCHENDE GESELLSCHAFT

Daraufhin wird jetzt beantragt, der Kongress möge (gestützt auf die erwähnten Beschlüsse von Kopenhagen) folgendes beschliessen :

> " Der Kongress erkennt den vorliegenden Deutschen Text der Inter-
> " nationalen Regeln für die Zoologische Nomenklatur als *offizielle*
> " *Übersetzung* an ; dies bedeutet, dass der Deutsche Text über keinerlei
> " Autorität bei Schwierigkeiten der Auslegung verfügt."

Der Kongress wird gebeten, auf diese Weise den bisherigen Status des Deutschen Textes der Regeln zu erhalten, nachdem dieser länger als ein halbes Jahrhundert (seit Berlin, 1901) existiert hat. Ein anerkannter Deutscher Text kann im Interesse der Universalität der Zoologischen Nomenklatur und im Hinblick auf die zahlreichen Deutsch sprechenden und deutschsprachlich orientierten Zoologen auch in Zukunft nicht entbehrt werden. Es wird darauf aufmerksam gemacht, dass auch die Regeln der Botanischen Nomenklatur (IRBN) in drei offiziellen Texten (Englisch, Französisch, Deutsch) vorliegen.

Entsprechende Anträge sind der Internationalen Kommission für Zoologische Nomenklatur bereits von folgenden wissenschaftlichen Gesellschaften zugeleitet worden, oder sie sind in der Anlage beigefügt :

ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN, *Wien* (9.i.1962) ;
DEUTSCHE AKADEMIE DER WISSENSCHAFTEN, *Berlin* (20.vii.1962) ;
DEUTSCHE AKADEMIE DER NATURFORSCHER LEOPOLDINA, *Halle* (14.xii.61) ;

Geologische Gesellschaft in Wien, *Wien* (20.xii.1961) ;
Paläontologische Gesellschaft, z.Zt., *Zürich* (13.xii.1961) ;
Deutsche Zoologische Gesellschaft, z.Zt., *Marburg* (14.vi.1962) ;
Senckenbergische Naturforschende Gesellschaft, *Frankfurt* (14.viii.62).

Dem Antrag schliessen sich weiterhin die deutschsprachigen Mitglieder der Internationalen Kommission an :

Prof. Dr. E. M. Hering, *Berlin* ;
Prof. Dr. W. Kühnelt, *Wien* ;
Prof. Dr. R. Mertens, *Frankfurt a.M.*

Frankfurt am Main, den 14 August 1962

Für die Richtigkeit :

Rob. Mertens

(Prof. Dr. R. Mertens)

Otto Kraus.

(Dr. O. Kraus)

Translation

Zoological Nomenclature

APPLICATION

TO THE

XVI INTERNATIONAL CONGRESS OF ZOOLOGY

Washington, 21–27 August 1963

The XIV International Congress of Copenhagen decided "... that in addition to the preparation of English and French texts . . steps should be taken by the International Trust without delay to secure the preparation of authorized translations into other languages . . ." [Copenhagen Decisions on Zoological Nomenclature, 101].

By order of the German-speaking zoologists and palaeontologists (represented by their leading societies) a German text of the Code has been worked out and was published on the 28 May 1962 (by permission of the International Trust of 16 February 1962). Even in minute particulars the present German text is identical with the authoritative French and English versions. It has been examined and approved by the German-speaking members of the International Commission on Zoological Nomenclature (E. M. Hering, W. Kühnelt, R. Mertens); furthermore the text has been acknowledged and accepted by the following societies:

Deutsche Zoologische Gesellschaft
Paläontologische Gesellschaft
Senckenbergische Naturforschende Gesellschaft

On this basis the Congress is asked now to accept the following ruling (in harmony with the Copenhagen Decision cited above):

> "The German text in question of the International Code of Zoological
> "Nomenclature is adopted by the Congress, and its status is defined as
> "*official translation*; i.e., the German text has no authority in case of
> "difficulties of interpretation."

The Congress is asked to preserve in this way the original status of the German text of the Code as it was in force for more than half a century (since Berlin, 1901). In the interest of the universality of Zoological Nomenclature, and with regard to the numerous zoologists speaking or using the German language the existence of a German text so approved cannot be omitted in future. It is pointed out that the Rules of Botanical Nomenclature (IRBN) also comprise three official texts (English, French, German).

Corresponding applications have already been sent to the International Commission on Zoological Nomenclature, or they are presented herewith, by the following scientific societies:

Österreichische Akademie der Wissenschaften, *Wien* (9.i.1962);
Deutsche Akademie der Wissenschaften, *Berlin* (20.vii.1962);

Deutsche Akademie der Naturforscher Leopoldina, *Halle* (14.xii.1961);
Geologische Gesellschaft in Wien, *Wien* (20.xii.1961);
Paläontologische Gesellschaft, z.Zt., *Zürich* (12.xii.1961);
Deutsche Zoologische Gesellschaft, z.Zt., *Marburg* (14.vi.1962);
Senckenbergische Naturforschende Gesellschaft, *Frankfurt* (14.viii.62).

Further, the application is supported by the German-speaking members of the International Commission:

Prof. Dr. E. M. Hering, *Berlin*;
Prof. Dr. W. Kühnelt, *Wien*;
Prof. Dr. R. Mertens, *Frankfurt a.M.*
Frankfurt am Main, 14 August 1962

Für die Richtigkeit

Rob. Mertens

(Prof. Dr. R. Mertens)

Otto Kraus.

(Dr. O. Kraus)

COMMENTS ON THE PETITION CONCERNING PENEID NAMES (CRUSTACEA DECAPODA) (Z.N.(S.) 962)

(see vol. 19 pages 103–114)

By Martin D. Burkenroad (*Museo Nacional de Panamá*)

1. It is gratifying to find agreement that uniform spelling of names derived from Latin Peneus and Aristaeus is desirable (Holthuis, 1962, *Bull. zool. Nom.* **19**(2) : 103–5). However, the proposal to spell all taxonomic names derived from Peneus with *aeus*, and all derived from Aristaeus with *eus*, seems still rather confusing. Accordingly, I would prefer to spell all of both sets of names in the simplest way, with *eus*.

As noted by Holthuis, " *Penaeus* Fabricius is already placed on the Official List in that spelling " ; but this precedent is difficult for me to accept, for the following reason : The Commission's Direction 15 (*Opinions and Declarations*, 1955 ; 1, C, C5 : 74) states that " The publication of the present application [by Hemming on *Peneus ;* 1952, *Bull. zool. Nom.* **6**: 318–9] elicited no objection to the action proposed in this case ". However, a letter from me objecting to the spelling *aeus* had been received and acknowledged.

Should Direction 15 be reconsidered by the Commission, it would be feasible to separate the question whether Weber's prior *Peneus* is a nomen nudum, from the question whether the subsequent Fabrician spelling *Penaeus* ought to be preserved. Meanwhile, since no confusion will be caused if anyone wishes to write *Trachypenaeus, Aristaeomorpha*, etc., for what I propose to spell *Trachypeneus, Aristeomorpha*, etc., the rather Laputan orthographic question might perhaps be left to work itself out among practising authorities.

2. Holthuis also recommends (*l.c.:* 105–6, 113–4) that the works of Tilesius (1814, 1818) on marine bioluminescence be rejected for nomenclatural purposes. However, it is not explained why the rule of nomen oblitum (Article 23b of the revised Code) needs reinforcement in this particular case. Under Article 23b, an historically-minded investigator who wished to pay a voluntary respect to the past could apply to the Commission for license to use a Tilesian name, but he would have to show that this use would serve the stability and uniformity of nomenclature (i.e. that a current name would not be displaced). This seems a satisfactory situation ; whereas the accumulation of inadequately indexed nomenclatural directives is a nuisance.

3. The petition under consideration (*l.c.;* pp. 106–7, 111–2) next recommends that the type-species of *Metapeneus* Wood-Mason be changed from *Peneus affinis* H. Milne-Edwards to *P. monoceros* Fabricius, on the grounds that " the name *Metapenaeus* proves not to be available at all for the genus containing *Penaeus monoceros*. As has recently been shown by Hall (1961, *Bull. Raffles Mus.* **26** : 93, 94), the type-specimen of *Penaeus affinis* . . . actually is a specimen of the species best known as *Parapenaeopsis sculptilis* (Heller, 1862) ".

However, Hall seems to have misunderstood Bate's account of the Edwardsian material of *affinis* (1881, *Ann. Mag. nat. Hist.* (5) **8** : 179, fig 6), and to have overlooked the actual type-specimens of this species. Bate describes the material which he saw in Paris as consisting of " several specimens in the same bottle, labelled from Malabar ; and they evidently show that Milne-Edwards drew up his description from a female, with which it coincides . . . ". At the time of my own visit to Paris, in 1938, this bottle contained an adult male and two adult females of a species which has been described under the name *Metapeneus necopinans* by Hall, 1956 (*Bull. Raffles Mus.* **27** : 86 ; synonymized with *Peneus mutatus* Lanchester by Hall, 1961, *l.c.*), and which was correctly identified as *affinis* by Alcock (1906), Pesta (1913), de Man (1924), Burkenroad (1934), Kubo (1954), etc. (nec " *affinis* " of Kishinouye, 1900 ; de Man, 1911 ; Kubo, 1949 ; Hall, 1956 ; etc.). Bate then goes on to say that

" In a second bottle, labelled ' India ', is a single female specimen that I take to be *P. sculptilis*, Heller ". This specimen (also seen by me in 1938, when, according to my notes, it was labelled " Bombay "), was evidently the only one seen at Paris by Hall (1958, *Ann. Mag. nat. Hist.* (13) **1**(7) : 540 ; and 1961, *l.c.* : 93–4). From its provenance this specimen of *Parapeneopsis* cannot be the type of Milne-Edwards' species, but must have been added to the collection after publication of the original description of *affinis* as from " la côte de Malabar ".

Peneus monoceros Fabricius is not even generically determinable from the original description, and its usage is much confused. A neotype has been designated for it by Hall, 1958 (*l.c.:* 544), but seems invalid under Article 75(c)5 of the revised Code (since the locality from which it came is not given) ; and Hall's definition of the species seems questionable according to the variations among Indian material which I have examined (compare also Hall's 1956 account of the forms of "*monoceros*" found at Singapore, *l.c.:* 77–8, fig. 11).

Thus, the petition in effect recommends the replacement of a well-defined type-species by a nomen dubium.

4. The petition (*l.c.:* 106-7, 111–2) also recommends suppression of the name *Mangalura* Miers, in order to avoid replacement by it of the junior genus-group name *Metapeneus* Wood-Mason, which is said to have been " used in Burkenroad's sense in all modern papers . . . ". However, this seems too sweeping an assertion. For example, Holthuis himself, 1959 (*Proc. Kon. Nederl. Ak. Wet.* **52**(9) : 3), did not accept Burkenroad (1934) ; he says that *Peneus monoceros* Fabricius " is considered to form part of the genus *Penaeopsis* Bate ". Again, Kubo (1949, *J. Tokyo Coll. Fish.* **36**(1) : 321, 355, 359) says that the " modern " use of *Metapeneus* dates from his post-war paper (he claims that Burkenroad confused *Metapeneus* with *Peneopsis* and referred to its species under the latter name). Still again, Burkenroad, 1959 (*Res. Sci. Miss. Dollfus en Egypte*, **25** : 86) points out that " . . . consequently *Mangalura* must replace *Metapeneus* " (a statement which might not qualify as " modern " having been submitted for publication before the war and lost in Egypt for twenty years, but which does save *Mangalura* from being a nomen oblitum).

Actually, the classification as well as the nomenclature of the species of this group has by now become so confused that a change in the generic name adds relatively little to the burden of fishery biologists (with whom, as one of them, I fully sympathize). Further, the taxonomic effect of the priority of *Mangalura* will not be entirely what the petition foresees (" the well-known name *Metapenaeus* . . . will entirely disappear and be replaced by the totally unfamiliar name *Mangalura* "). A review of the genus (now nearing completion) has revealed that it is quite clearly divisible into two series or subgenera, one including the type-species of *Metapeneus*, the other that of *Mangalura*. Consequently, *Metapeneus* will merely be restricted to a still smaller taxon than was assigned to it during my revision of " *Penaeopsis* " in 1934. The subdivision of the old genus *Peneus* has not yet quite reached a level justifying the use of *Metapeneus* independently of *Mangalura ;* otherwise the seniority of the latter subgenus would be unimportant.

To use the plenary powers to suppress a name for which a new one would have to be coined (which is, in effect, what the petition proposes for *Mangalura*) seems a precedent to be avoided until other possible alternatives have been exhausted. Could *Mangalura* be declared legally junior to *Metapeneus ?* Or could ordinary technical grounds be found for invalidating it (such as I have not sought very tenaciously, because of disinclination to replace the name of so worthy a pioneer as Miers) ? If there is no practicable alternative to suppression by plenary action, the reasons for requesting the action should certainly be evalued with care ; and I would propose, as standards for gauging the relative strength of the argument for rejecting *Mangalura*, some of Dr. Holthuis's own previous contributions to Peneid nomenclature.

As a standard example, then (although an invidiously selected one ; and I must mention my appreciative agreement with Dr. Holthuis on, e.g., *Peneus setiferus*), the unfamiliar trivial name *Peneus kerathurus* (Forskål, 1775) has been introduced for a well-known fishery animal of the Eastern Atlantic and Mediterranean by Holthuis, 1947 (*Zool. Med.* 27 : 312 ; see also 1961, *Zool. Verh.* 47 : 4). The reasons given for using *kerathurus* instead of requesting its rejection are, that it is " the correct name ", and that there " is no reason not to use the name . . for this species as at present there is no uniformity in the use of a name for it . . . ". The latter statement seems to me misleading, since by 1947 one of the two familiar names for this species, *P. trisulcatus* Leach, 1815, had about completed its gradual displacement of the other, *P. caramote* Risso, 1816 (the latter, introduced long before Linnaeus by Rondelet, having been sustained during the 19th century by H. Milne-Edwards' account of it as distinct from *trisulcatus* and senior to *kerathurus*).

Again, Holthuis, 1949 (*l.c.:* 2, 5–6) has proposed to apply the name *Peneus monodon* Fabricius (indeterminable as described) to an important fishery species generally known for nearly forty years before as *P. carinatus* Dana ; with the comment that " It is the object of the present paper to establish the correct names of the two species involved and to be in this way of some help to those who study the prawn fisheries of the indo-west pacific area . . . The restoration of the name *monodon* for Alcock's *Penaeus semisulcatus* probably will cause as little confusion as the substitution of the name *semisulcatus* for his *monodon* did . . . I am convinced that the only correct thing to do is to give the name *Penaeus monodon* Fabr. to the species indicated with the name *Penaeus carinatus* by deMan (1911), Kemp (1915) and many subsequent authors ". To clear the way for this confusing reversal of usage, Holthuis pointed out that Dana's *carinatus* is a junior primary homonym of *Peneus carinatus* Otto (1822) ; but this latter name has apparently never been mentioned since its publication except in Sherborn and (without identification) by Holthuis, and it seems much more suitable for suppression than for use.(1)

Thus, according to standards derived from the work of Holthuis himself, the reasons advanced for rejection of *Mangalura* seem weak.

5. Finally, the petition (*l.c.:* 107–111) recommends a number of generic and trivial names of Peneids for the Official List. However, the summary presentation of these names provides no hint that some of them at least are controversial in other ways than the orthographic one already treated in section 1 above. Analyses of three selected examples are offered herewith, as follows :

(a) " *Metapenaeopsis miersi* " (Holthuis, 1952) is stated in the petition to be the valid name of the type-species of this genus-group taxon, on the grounds that " *Metapenaeopsis pubescens* " Bouvier (1905) was " rejected as a junior secondary homonym of *Penaeus pubescens* Stimpson, 1871, . . . by Holthuis, 1952 . . . and replaced by the name *Penaeopsis miersi* Holthuis . . . ". However, Holthuis has nowhere stated that he himself regards Stimpson's and Bouvier's species as distinct but congeneric, and in his 1952 paper only says (erroneously) that Burkenroad (1934) thinks them so ; which seems to invalidate his action.

In 1950, the Commission ruled that after " midnight G.M.T. . . . 31st December, 1950 . . . where . . . an author rejects a specific trivial name on the grounds that it is

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(1) To give force to this value-judgement, Otto's *carinatus* is called to the Commission's attention herewith as a nomen oblitum which is a synonym of the well-known current name *Parapeneus longirostris* (Lucas, 1849) as well as a homonym of *Peneus carinatus* Dana (1852), and which thus ought for the sake of stability to be completely rejected under Article 23(b) of the revised Code.

In order to complete his replacement of *carinatus* Dana by *monodon* Fabricius, Holthuis designated a Javanese specimen of the former as neotype of the latter ; but this seems invalid under Article 75(c)5 of the revised Code (since it is improbable that the Fabrician material was obtained from further east " in Oceano Indico " than the terminus of Daldorff's voyage to his station at Tranquebar on the Coromandel coast of India ; *cf.* Holthuis and Gottlieb, 1958, *Bull. Res. Counc. Israel* 7B, 1–2 : 20).

The way is therefore now open for restoration of the status quo ; and it may be pointed out that *monodon* can be put into currency without overturning the customary usage of *semisulcatus* or *carinatus*, by applying it to the Arabian Sea subspecies of the species called *monodon* by H. Milne-Edwards, 1837 (*cf.* Burkenroad, 1959, *l.c.* : 75–9).

. . . the later published of a pair of secondary homonyms, that rejection is to be accepted as valid only if the author in question makes it clear . . . that he regards as congeneric the two species bearing identical specific names . . . " (*Bull. zool. Nom.* **4**(4/6) : 121). The statement of rejection by Holthuis (1952) is as follows : " H. Balss . . . identifia comme une seule espèce les formes de E. L. Bouvier et de W. Stimpson et leur donna le nom de *Penaeopsis pubescens* (Stimpson). Dans une revision du genre *Penaeopsis*, M. D. Burkenroad . . . arrive à la conclusion que *Penaeopsis pubescens* (Bouvier) et *Penaeopsis pubescens* (Stimpson) sont des espèces différentes et que la détermination de la dernière espèce n'est pas certaine. Il est donc claire que le plus recent des deux noms . . . doit être supprimé ".⁽²⁾

Inasmuch as the rejection of Bouvier's *pubescens* by Holthuis (1952) was invalid under the rules then in force, his *miersi* cannot under Article 59(c) of the present Code now be accepted as the name of the type-species unless *Peneopsis* (*Metapeneopsis*) *pubescens* (Bouvier) and *Parapeneopsis* (?) *pubescens* (Stimpson) are believed to be congeners, a question which he has not discussed.

(b) *Benthesicymus crenatus* Bate, is stated in the petition to be the " type-species, by selection by Bate, 1888 . . . ". However, Bate seems in fact to have lacked the type-concept and to have used the word merely in the sense of *representative*. The actual designator of *crenatus* seems, under the Code, to have been the ichthyologist Fowler (1912, *Ann. Rept. N.J. State Mus.* **1911**(2) : 544) who, not being familiar with Bate's usages, made the erroneous but effective statement " Type *Benthesicymus crenatus* Bate, first species, designated by Bate, Rep. Voy. Challenger, Macr. LII, 1888, p. 320 ".

In the cited passage, Bate (*l.c.:* 320) says that certain features of *Hepomadus* " correspond with those in *Hemipenaeus tomentosus* more than with those in either *Aristaeus armatus* or *Benthesicymus crenatus*, the types of their respective genera ". However, he had already referred in the same publication (pp. 307, 311) to " *Hemipenaeus semidentatus* . . . the typical species ", and to " *Penaeus antennatus*, Risso, the type of Duvernoy's genus " *Aristeus*. Therefore, in the case of the *Benthesicymus* as well as the *Hemipeneus* and the *Aristeus* on p. 320, it is not " clear that he himself accepts it as the type-species " (Article 69(a)iii of the revised Code).

This point is of some importance because Bate's loose employment of the word " type " might be used to create nomenclatural confusion in other cases, if the precedent recommended in the petition were to be accepted.

(c) " *Penaeopsis serratus* Bate, 1881 . . . 183 " is stated in the petition to be the valid name of the type-species of this genus. However, since the time of the revision of Burkenroad, 1934 (*l.c.:* 12–15), this name (which, according to Article 51c of the revised Code, should evidently be cited as " *P. serratus* A. Milne-Edwards in Bate ") has been generally regarded as a junior secondary homonym of *Peneopsis serratus* (Bate, 1881, *l.c.:* 182), and the valid name of the type-species as *Peneopsis megalops* (Smith, 1886).

In personal communications from Dr. Holthuis concerning his petition (which have indebted me to him for many shrewd and interesting points helpful in clarifying the present issues), it is noted that the current use of *megalops* can be questioned under the rule of the first reviser, since deMan (1911) considered Bate's *Peneus serratus* to be the junior of the pair of homonyms. However, my view of the legal situation is that, " rigidly construed ", Burkenroad (1934) is the " first reviser " in the sense of the Code. The history of the situation is as follows :

⁽²⁾ Actually, Burkenroad, 1934 (*Bull. Bingham Oc. Coll.* **4**(7) : 15–17) nowhere used the combination " *Penaeopsis pubescens* (Stimpson) ", and concluded that this species must have been a *Parapeneopsis*. His remarks are as follows : " Stimpson's statements . . . that the leg bases of this species are unarmed and . . . the telson bears only one pair of lateral spines . . . fail to agree with what is very conspicuously the state of all known species of *Penaeopsis*. The only other genus to which the remainder of the description might apply seems to be *Parapenaeopsis* . . . [It is] possible that a since-undiscovered species of *Parapenaeopsis* from which Stimpson's description was drawn exists in the Western Atlantic. Therefore . . . the West African species of *Penaeopsis* may be known as *P. pubescens* (Bouvier) ".

In 1909, Bouvier (with A. Milne-Edwards as nominal senior author, *Mem. M.C.Z. Harvard* **27**(3) : 221) identified a species which had been well-described by Smith (1886) under the name *Parapeneus megalops*, as the " *Penaeopsis serratus*, A. Milne-Edwards, MS " which had been published without adequate description by Bate (1881) in comparison with his own " *Penaeus serratus*, n.sp.". There are a number of reasons for doubting that *megalops* was actually the species to which Bate had referred (or the one labelled " *Penaeopsis serratus* " at the time of Bate's visit to A. Milne-Edwards in 1881) ; but, on the basis of Bouvier's seemingly authoritative identification, the generic name *Peneopsis* has subsequently been used for the Peneine genus to which *megalops* (Smith) belongs, rather than (as by Faxon, 1895) for the Solenocerine genus to which *Hymenopeneus robustus* Smith belongs.

Bouvier seems to have believed that *Peneus serratus* Bate had not been described until 1888, seven years after the description of *Peneopsis serratus* A. Milne-Edwards in Bate ; and he regarded the former as " sans doute " a junior synonym of the latter. He also pointed out that if the two were not identical, their names would be homonymous ; but did not directly designate Bate's name as the junior homonym.(3)

In 1911, deMan concluded that Bate's *serratus* was distinct from Milne-Edwards's, but seems to have copied Bouvier's references without checking them, and so failed to realize that the case was one of simultaneous publication. On pp. 8–9 (*l.c.*) deMan gives the dates of Bate's and Milne-Edwards's *serratus* as respectively 1888 and 1881; and on p. 79 he says, " *Penaeopsis Challengeri* n.nom. Syn.: *Penaeus serratus* C. Spence Bate, Report Challenger Macrura, 1888, p. 268, Pl. XXXVII, Fig. 1 (nec *Penaeopsis serratus* A. Milne-Edwards) ".

As to whether deMan established that Bate's *serratus* is a junior homonym of Milne-Edwards's, Article 35 of the old Code says only that " the more recent specific . . . name is to be rejected as a homonym ". It does not say how relative priority is to be established, and an author's mistake about date of publication of a name would seem a poor reason to license him to deal out the permanent rejection which was prescribed for junior secondary homonyms under the old Code. Article 24 of the 1961 Code specifies that priority between simultaneously-published names is to be established by the first reviser, but seems to require an author to recognize the fact of simultaneous publication in order to qualify as a first reviser ; which would exclude Bouvier and deMan.(4)

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(3) Bouvier's words (1909, *l.c.:* 225) are : " Quant au *Penaeus serratus* décrit et figuré par Spence Bate (1888, p. 268, Pl.XXXVII, Fig. 1) il ressemble beaucoup au *Penaeopsis serratus* et devrait sans doute être identifié avec lui . . Mais les figures de Spence Bate ne sont pas trés claires et peut-être y aura-t-il lieu de revenir sur cette question ; en tout cas, il semble bien que le *Penaeus serratus* de cet auteur soit un *Penaeopsis* dont le nom fait double emploi avec celui proposé par A. Milne-Edwards ". The latter, contingent statement, that homonymy rather than synonymy might later be found to exist, could not be expected to specify which of the two simultaneously-published names is prior ; since Bouvier was evidently unaware that they were published simultaneously and since, believing them to be synonyms, he did not propose a new name for one of the pair.

(4) Article 24 reads as follows : " If . . . identical names for different taxa . . . are published simultaneously . . . their relative priority is determined by the action of the first reviser . . . The expression ' first reviser ' is to be rigidly construed. In the case of synonyms, an author must have cited two or more such names . . . Recommendation 24A . . . In acting as ' first reviser ' in the meaning of this Section, a zoologist should select the name . . . that has precedence of position in the work in question ". This somewhat ambiguously-worded Article does not specify what an author must do to qualify as " first reviser " in the case of homonyms rather than synonyms ; and even in the case of synonyms it does not specify that the author must have cited " such names " as simultaneously published ; but the intent of the Article seems to be established by the Recommendation. An author who, like Bouvier or deMan, has cited the synonymous or homonymous names as having different dates, when they had in fact been simultaneously published, would obviously not be able to comply with the Recommendation to select the name that has priority of position; therefore, such an author would evidently not have been " acting as ' first reviser ' in the meaning of this Section ".

In 1934, Burkenroad revised the catch-all " *Penaeopsis* " of deMan, with as little disturbance of current nomenclature as the circumstances permitted. The identity of Bate's " *serratus*, A. Milne-Edwards, MS " was not questioned ; but instead this question was swept under the carpet by removing this name from currency as a junior secondary homonym of *serratus* Bate. As long as *Peneopsis* (*Peneopsis*) *megalops* (Smith) continues to be accepted as the valid name of the type-species, the question of the true identity of Milne-Edwards's *serratus* need not, in practise, be raised (and will therefore not be discussed here, except to say that it is complicated and difficult). If, however, the legal considerations advanced above are not so conclusively in favor of current usage as I think, it should be noted that Holthuis's recommendation to place *serratus* A. Milne-Edwards in Bate on the Official List still seems unacceptable, because it names but does not clearly identify the type-species of *Peneopsis*.

To summarize section 5, it is uncertain how many of the petition's recommendations for the Official List may include undesirable or, at least, controversial features ; and decision should perhaps await the publication of more extensive individual accounts of all these names.

6. The foregoing technical commentary is framed in the same terms as the petition. From a broader point of view also, the question can be raised whether adoption of the proposals in the petition would eliminate more instability and inconvenience than they would generate ; *cf.* Parr, 1939 (*Trans. N.Y. Acad. Sci.* (2) 2(2) : 4), "Taxonomy has fallen rather miserably short of this purpose, largely due to the fact that it has substituted for common sense a rigid system of legalistic rules of procedure . . ".

Professor Parr does not seem to have published more than peripheral fragments of the prescription for the ills of taxonomy to which he introduced me some thirty years ago, a central concept of which was the designation of new starting-points for nomenclature, to supplement the Linnean monograph, whenever suitable accounts of the classification of a group become available. A discussion of this idea, which has many attractive implications, cannot be attempted in the present place ; but I wish to state my conviction that new operating concepts will be required for satisfactory solution of problems such as are treated in Dr. Holthuis's petition.

By Gordon Gunter (*Gulf Coast Research Laboratory, Ocean Springs, Mississippi, U.S.A.*)

I have previously commented (Gunter, in press) that Dr. Holthuis's (*Zoologischer Verhandelinger* 44 : 1–192, 16 pls. 1959) usage of the root word *Penaeus* for all genera of the Penaeidae is not in conformity with the Code. As stated in his proposal, I defended the maintenance of *Penaeus* and *Peneus* as the original describers wrote them. However, his argument for uniformity is rather convincing. His own adoption of the uniformity before the Commission has acted on the case is more convincing still. Other authors are going to do the same thing. Therefore, I withdraw my arguments for continued use of *Penaeus* and *Peneus* as root words and join Dr. Holthuis in his request for uniform spelling.

F. Weber (*Nomenclator entomologicus secundum Entomologiam systematicam*, etc. VIII + 171 pp. Chilonii et Hamburgi. Bohn, 1795) did use *Peneus*, but he described no species and his names are all *nomina nuda*. Therefore, for purposes of zoological nomenclature, the name starts with Fabricius in 1798 and for unstated reasons he used *Penaeus*. Nearly all authors have used that spelling. It would cause a great overturn now to substitute *Peneus*. Therefore, I advocate the adoption of paragraph 5 on page 111 of the subsidiary parts of Dr. Holthuis's request, chiefly (1), as outlined.

Concerning the other parts of Dr. Holthuis's request for action on penaeid names I have no knowledge and no authority. They do seem to be well thought out and well presented.

OPINION 655

BLANKAARTIA OUDEMANS, 1911 (ACARINA): ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES

RULING.—(1) It is hereby Ruled that the valid type-species of *Blankaartia* Oudemans, 1911, is in fact *Trombidium niloticum* Trägårdh, 1905 (as designated by Oudemans) in spite of the fact that Oudemans based his genus on a larva which has been shown to represent quite another species.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Blankaartia* Oudemans, 1911 (gender : feminine), type-species, by monotypy, *Trombidium niloticum* Trägårdh, 1905 (Name No. 1534) ;

(b) *Pseudoblankaartia* Fuller & Wharton, 1951 (gender : feminine), type-species, by monotypy, *Pseudoblankaartia bequaerti* Fuller & Wharton, 1951 (Name No. 1535).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *niloticum* Trägårdh, 1905, as published in the binomen *Trombidium niloticum* (type-species of *Blankaartia* Oudemans, 1911) (Name No. 1894) ;

(b) *bequaerti* Fuller & Wharton, 1951, as published in the binomen *Pseudoblankaartia bequaerti* (type-species of *Pseudoblankaartia* Fuller & Wharton, 1951) (Name No. 1895).

(4) The generic name *Tragardhula* Berlese, 1912 (a junior objective synonym of *Blankaartia* Oudemans, 1911) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1629.

HISTORY OF THE CASE (Z.N.(S.) 330)

The present problem was first submitted to the office of the Commission by Prof. H. S. Fuller and Prof. G. Wharton in December 1947. The detailed history of the case is recounted in a Report prepared by the Assistant Secretary to the Commission, Dr. W. E. China. Dr. China's paper was sent to the printer on 4 March 1960, and was published on 16 September 1960 in *Bull. zool. Nomencl.* **17** : 301–312. Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56).

Comments on the case were received from Dr. D. A. Crossley and Dr. Robert Domrow (*Bull. zool. Nomencl.* **18** : 176) and from Dr. R. V. Southcott, Dr. J. R. Audy and Prof. G. Wharton. The comments of the last three, not having been published in the *Bulletin*, were circulated to the Commission at the time of Voting.

DECISION OF THE COMMISSION

On 1 December 1961 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (61)33 either for or against the use of the plenary powers to designate a type-species for the nominal genus *Blankaartia* Oudemans, 1911, as set out in the proposals published in *Bull. zool. Nomencl.* **17** : 311–312.

On 2 April 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)9 on the same subject. With that Voting Paper the following Report was circulated to the Commission :

" Voting Paper (61)33, issued on 1 December 1961, was concerned with the determination of the type-species of *Blankaartia* Oudemans, 1911. The application was published in *Bull. zool. Nomencl.* **17** : 301–312. Alternative proposals were placed before the Commission : the proposal presented in paragraph 24 on page 311 was that *Blankaartia* should be interpreted strictly according to the Code ; the proposal presented in paragraph 25 on pages 311–312 was that the plenary powers should be used to designate another type-species for the genus.

" On 1 March 1962, the end of the prescribed Voting Period for Voting Paper (61)33, fourteen (14) Commissioners had voted for the use of the plenary powers to designate a type-species for *Blankaartia :*

Evans, Holthuis, Hering, Riley, Obruchev, Alvarado, Kühnelt, Bonnet, Brinck, Uchida, do Amaral, Borchsenius, Tortonese, Poll.

" Nine Commissioners had voted for the adoption of the proposals not involving the use of the plenary powers :

Vokes, Mayr, Jaczewski, Munroe, Lemche, Stoll, Key, Mertens, Miller.

" Commissioners Boschma, Hemming and Prantl did not return their Voting Papers and Commissioner Bradley was on Leave of Absence.

" The proposal involving the use of the plenary powers, therefore, whilst having gained the majority vote has not obtained the two-thirds majority necessary for a plenary powers decision of the Commission. In accordance therefore with the Commission's By-Laws, the vote taken on Voting Paper (61)33 is treated as a preliminary vote only and the proposals are now resubmitted, on Voting Paper (62)9, for a final decision. If less than two out of three Commissioners voting on V.P.(62)9 vote in favour of the use of the plenary powers to designate a type-species for *Blankaartia* (para. 25) then the Rules shall be strictly applied and the alternative set out in para. 24 shall be treated as the alternative adopted by the Commission.

" In returning Voting Paper (61)33 Dr. Key made the following comment :

' Article 70(a) differs from the rule recognised prior to the London Congress and quoted by Mr. Hemming, and by you in your paragraph 23 (*Bulletin*, pp. 310–311), in that it requires the Commission to designate as type-species " whichever species will in its judgment best serve stability and uniformity of nomenclature " (Article 70) and not necessarily " the species intended by the original author " (your para. 23). Thus the principal concern of the Commission must be to determine which solution will best serve stability and uniformity.

' In spite of the conflict of opinion among the specialists, the balance of the evidence seems to me to favour the view that the solution set out in paragraph 24 will better serve stability and uniformity, especially when we consider usage in the important works published since 1951 ' ".

On 2 July 1962, at the close of the prescribed Voting Period on Voting Paper (62)9, the state of the voting was as follows :

Affirmative Votes—thirteen (13), received in the following order : Hering, do Amaral, Obruchev, Boschma, Evans, Alvarado, Borchsenius, Uchida, Tortonese, Riley, Brinck, Kühnelt, Bonnet.

Negative Votes—ten (10) : Vokes, Jaczewski, Munroe, Mayr, Key, Lemche, Miller, Mertens, Bradley, Stoll.

On Leave of Absence—two (2) : Holthuis, Prantl.

Commissioners Poll and Hemming returned late votes in favour of the use of the plenary powers.

Professor J. Chester Bradley returned the following comment with his Voting Paper : " Where specialists disagree as to the best solution the plenary powers should not be used, especially in the case when the applicants themselves feel that the general importance of the case does not warrant their use ".

Since on this, the second Voting Paper to be issued in this case, there was not a two-thirds majority of the Commission in favour of the use of the plenary powers, the Rules have been strictly applied and the alternative set out in paragraph 24 of Dr. China's Report has been considered to have been adopted.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

bequaerti, *Pseudoblankaartia*, Fuller & Wharton, 1951, *Psyche* **58**(2) : 85–88
Blankaartia Oudemans, 1911, *Ent. Berichten* **3**(57) : 123
niloticum, *Trombidium*, Trägårdh, 1905, *Results Swedish zool. Exp. Egypt and White Nile*, 1901, **II** : 78–82
Pseudoblankaartia Fuller & Wharton, 1951, *Psyche* **58**(2) : 85–88
Tragardhula Berlese, 1912, *Redia* **8** : 4

CERTIFICATE

I certify that the votes cast on Voting Papers (61)33 and (62)9 were cast as set out above, that the proposals set out in the latter Voting Paper as the second alternative has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 655.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
9 *July* 1962

OPINION 656

HARRISONIELLA BEDFORD, 1929 (INSECTA, MALLOPHAGA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Harrisoniella* Bedford, 1929, made prior to the present Ruling, are hereby set aside and the nominal species *Lipeurus ferox* Giebel, 1867, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Harrisoniella* Bedford, 1929 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Lipeurus ferox* Giebel, 1867 (Name No. 1536) ;
(b) *Perineus* Thompson, 1936 (gender : masculine), type-species, by original designation, *Lipeurus nigrolimbatus* Giebel, 1874 (Name No. 1537).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *diomedeae* Fabricius, 1775, as published in the binomen *Pediculus diomedeae*, and as interpreted by the neotype designated by Clay, 1940 (Name No. 1896) ;
(b) *ferox* Giebel, 1867, as published in the binomen *Lipeurus ferox* (type-species of *Harrisoniella* Bedford, 1929) (Name No. 1897) ;
(c) *nigrolimbatus* Giebel, 1874, as published in the binomen *Lipeurus nigrolimbatus* (type-species of *Perineus* Thompson, 1936) (Name No. 1898).

HISTORY OF THE CASE (Z.N.(S.) 1282)

The present case was submitted to the office of the Commission in July 1957 by Dr. Theresa Clay and Mr. G. H. E. Hopkins. It was sent to the printer on 8 December, 1960 and published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 195–198. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. Per Brinck.

On 29 June 1961, Dr. L. B. Holthuis addressed the following letter to the Secretary to the Commission : " According to Article 50 of the Code ' The author of a scientific name is the person . . . who first publishes it in a way that satisfies the criteria of availability, unless it is clear from the contents of the publication that . . . some other person . . . is alone responsible both for the name and the conditions that make it available '. As in the original description of the genus *Perineus* 1936 there is no indication whatever that Harrison and not Thompson is responsible for the name and description, Thompson has to be cited as the author, even if he himself admits that the whole paper was written by Harrison. I personally believe that only under the plenary powers of the Commission can Harrison be established as the author of *Perineus* (one could even suppress *Perineus* Thompson, 1936, and validate *Perineus* Harrison, 1937, if necessary) ".

Since Dr. Clay did not wish to invoke the plenary powers to ensure that Harrison was cited as the author of *Perineus*, it was pointed out on the Voting Paper issued in this case that that name is correctly attributed to Thompson, not to Harrison.

DECISION OF THE COMMISSION

On 2 April 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)10 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 198. At the close of the prescribed Voting Period on 2 July 1962 the state of the Voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Vokes, Jaczewski, do Amaral, Munroe, Obruchev, Mayr, Bradley, Boschma, Evans, Alvarado, Key, Borchsenius, Uchida, Tortonese, Riley, Lemche, Miller, Brinck, Mertens, Stoll, Kühnelt, Bonnet.

Negative Votes—none (0).

On Leave of Absence—two (2) : Holthuis, Prantl.

Late affirmative votes were returned by Commissioners Hemming and Poll. Mr. Hemming made the following note on his Voting Paper : " I agree with the need for the minor correction noted by Dr. Holthuis, and hope that it will be incorporated in the Opinion. There is nothing to stop the name being cited as ' *Perineus* (Harrison MS) Thompson ', if on any occasion it is considered desirable."

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists by the Ruling given in the present Opinion :

diomedeae, Pediculus, Fabricius, 1775, *Syst. Ent.*: 808
ferox, Lipeurus, Giebel, 1867, *Z. ges. NatWiss.* **29** : 195
Harrisoniella Bedford, 1929, *Rep. vet. Res. S. Africa* **15** : 529
nigrolimbatus, Lipeurus, Giebel, 1874, *Insecta epizoa* : 233
Perineus Thompson, 1936, *Ann. Mag. nat. Hist.* (10) **18** : 41

The following is the original reference for the designation of a neotype for a nominal species concerned in the present Ruling :

For *Pediculus diomedeae* Fabricius, 1775 : Clay, 1940, *Sci. Rept. British Graham Land Exped.* **1** : 299–302, figs. 1, 2, 4a, 5a, 6a.

CERTIFICATE

I certify that the votes cast on Voting Paper (62)10 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 656.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
9 *July* 1962

OPINION 657

LESTIS LEPELETIER & SERVILLE, 1828 (INSECTA, HYMENOPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Lestis* Lepeletier & Serville, 1828, made prior to the present Ruling, are hereby set aside and the nominal species *Apis bombylans* Fabricius, 1775, is hereby designated to be the type of that genus.

(2) The generic name *Lestis* Lepeletier & Serville, 1828 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Apis bombylans* Fabricius, 1775, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1538.

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *bombylans* Fabricius, 1775, as published in the binomen *Apis bombylans* (type-species of *Lestis* Lepeletier & Serville, 1828) (Name No. 1899) ;

(b) *muscaria* Fabricius, 1775, as published in the binomen *Apis muscaria* (Name No. 1900).

HISTORY OF THE CASE (Z.N.(S.) 1383)

The present case was submitted to the Office of the Commission by Dr. Paul D. Hurd in June 1958. It was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 201–202. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* and to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. No comment was received.

DECISION OF THE COMMISSION

On 2 April 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)12 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 202. At the close of the Voting Period on 2 July 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Vokes, do Amaral, Munroe, Obruchev, Mayr, Bradley, Boschma, Evans, Alvarado, Key, Borchsenius, Uchida, Tortonese, Riley, Lemche, Miller, Jaczewski, Brinck, Mertens, Stoll, Kühnelt, Bonnet.

Negative Votes—none (0).

On Leave of Absence—two (2) ; Holthuis, Prantl.

Commissioners Hemming and Poll returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion :

bombylans, Apis, Fabricius, 1775, *Syst. Ent.:* 386
Lestis Lepeletier & Serville, 1828, *Ency. méth.* (Ins.) **10** : 795, 799–800
muscaria, Apis, Fabricius, *Syst. Ent.:* 386

CERTIFICATE

I certify that the votes cast on Voting Paper (62)12 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 657.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
9 *July* 1962

OPINION 658

TYLENCHUS GULOSUS KÜHN, 1890 (NEMATODA): SUPPRESSION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *gulosus* Kühn, 1890, as published in the binomen *Tylenchus gulosus*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The specific name *penetrans* Cobb, 1917, as published in the binomen *Tylenchus penetrans*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1901.

(3) The specific name *gulosus* Kühn, 1890, as published in the binomen *Tylenchus gulosus* (suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 745.

HISTORY OF THE CASE (Z.N.(S.) 1432)

The present case was submitted to the Commission office by Dr. P. A. A. Loof in May 1959. A revised version of Dr. Loof's application was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 206–207. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to one nematological serial. The application was supported by Dr. J. B. Goodey and Dr. M. T. Franklin (*Bull. zool. Nomencl.* **18** : 358) and by Dr. A. L. Taylor and Dr. M. Golden (*Bull. zool. Nomencl.* **19** : 114).

DECISION OF THE COMMISSION

On 2 April 1962 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)14 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 207. At the close of the prescribed Voting Period on 2 July 1962 the state of the voting was as follows :

Affirmative Votes—twenty-two (22), received in the following order : Hering, Vokes, do Amaral, Obruchev, Mayr, Bradley, Boschma, Evans, Alvarado, Key, Borchsenius, Uchida, Tortonese, Riley, Lemche, Miller, Jaczewski, Brinck, Munroe, Stoll, Kühnelt, Bonnet.

Negative Votes—one (1) ; Mertens.

On Leave of Absence—two (2) ; Holthuis, Prantl.

Commissioners Hemming and Poll returned late affirmative votes.

In returning his negative vote Dr. Mertens made the following comment : " With respect to the great confusion during the first half of the twentieth century in taxonomy and nomenclature of the group concerned, I can see no reason for the actions proposed. As the present usage dates from very recent times, I would find it better to stabilize the situation by a neotype selection for the nominal species *gulosus* ".

ORIGINAL REFERENCES

gulosus, Tylenchus, Kühn, 1890, *Jahrb. Deut. Landw. Ges.* **4** : 93–94
penetrans, Tylenchus, Cobb, 1917, *J. agric. Res.* **11** : 27–33

CERTIFICATE

I certify that the votes cast on Voting Paper (62)14 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 658.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
25 *July* 1962

OPINION 659

HYRACODON PLANICEPS SCOTT & OSBORN, 1887 (MAMMALIA): SUPPRESSION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *planiceps* Scott & Osborn, 1887, as published in the binomen *Hyracodon planiceps*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The specific name *tridactylus* Osborn, 1893, as published in the binomen *Aceratherium tridactylus*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1902.

(3) The specific name *planiceps* Scott & Osborn, 1887, as published in the binomen *Hyracodon planiceps* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 746.

HISTORY OF THE CASE (Z.N.(S.) 1438)

The present case was submitted to the office of the Commission by Horace E. Wood, 2nd., in August 1959. It was sent to the printer on 17 January 1961 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 208. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two specialist serials. No objection was received.

DECISION OF THE COMMISSION

On 2 April 1962 the members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)15 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 208. At the close of the prescribed Voting Period on 2 July 1962 the state of the voting was as follows :

Affirmative Votes—twenty-one (21), received in the following order : Hering, Vokes, do Amaral, Munroe, Obruchev, Mayr, Bradley, Boschma, Evans, Alvarado, Key, Borchsenius, Uchida, Tortonese, Riley, Lemche, Brinck, Mertens, Stoll, Kühnelt, Bonnet.

Negative Votes—two (2) : Jaczewski, Miller.

On Leave of Absence—two (2) : Holthuis, Prantl.

Commissioner Hemming returned a late affirmative vote and Commissioner Poll a late negative vote. The following comments were made by Commissioners in returning their votes :

Prof. J. Chester Bradley (7.v.62) : "I vote very reluctantly to quash *planiceps* before its identity has been established. It would have been better to list it as a nomen dubium rather than to have brought it before the Commission".

Dr. T. Jaczewski (4.vi.62) : "In my opinion the matter is to be postponed until more evidence is available concerning the taxonomic status of *Hyracodon planiceps* Scott & Osborn, 1887 ".

Dr. M. Poll (6.vii.62) : " Je vote contre, parce que j'estime que *planiceps* n'est pas un nom douteux, car il s'applique à un fossile décrit et conservé encore à l'heure actuelle dans un musée, et d'autre part la preuve n'est pas fait que *Hyracodon planiceps* soit synonyme de *Subhyracodon tridactylus* ".

CERTIFICATE

I certify that the votes cast on Voting Paper (62)15 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 659.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
25 *July* 1962

OPINION 660

SUPPRESSION UNDER THE PLENARY POWERS OF SEVEN SPECIFIC NAMES OF TURTLES (REPTILIA, TESTUDINES)

RULING.—(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *viridi-squamosa* Lacépède, 1788, as published in the binomen *Testudo viridi-squamosa ;*
(b) *minor* Suckow, 1798, as published in the combination *Testudo mydas minor ;*
(c) *flava* Lacépède, 1788, as published in the binomen *Testudo flava ;*
(d) *meleagris* Shaw, 1793, as published in the binomen *Testudo meleagris ;*
(e) *planitia* Gmelin, 1789, as published in the binomen *Testudo planitia ;*
(f) *dorsata* Schoepff, 1801, as published in the binomen *Testudo dorsata ;*
(g) *semimembranacea* Hermann, 1804, as published in the binomen *Testudo semimembranacea :*

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *kempii* Garman, 1880, as published in the binomen *Thalassochelys* (*Colpochelys*) *kempii* (Name No. 1903);
(b) *blandingii* Holbrook, 1838, as published in the binomen *Cistuda blandingii* (Name No. 1904);
(c) *temminckii* Troost, 1835, as published in the binomen *Chelonura temminckii* (Name No. 1905).
(d) *punctularia* Daudin, 1802, as published in the binomen *Testudo punctularia* (Name No. 1906);
(e) *sinensis* Wiegmann, 1835, as published in the binomen *Trionyx* (*Aspidonectes*) *sinensis* (Name No. 1907);
(f) *terrestris* Forskål, 1775, as published in the binomen *Testudo terrestris* (Name No. 1908);
(g) *fimbriata* Schneider, 1783, as published in the binomen *Testudo fimbriata* (Name No. 1909).

(3) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *viridi-squamosa* Lacépède, 1788, as published in the binomen *Testudo viridi-squamosa* (Name No. 747);
(b) *minor* Suckow, 1798, as published in the combination *Testudo mydas minor* (Name No. 748);
(c) *flava* Lacépède, 1788, as published in the binomen *Testudo flava* (Name No. 749);
(d) *meleagris* Shaw, 1793, as published in the binomen *Testudo meleagris* (Name No. 750);

Bull. zool. Nomencl., Vol. 20, Part 3. April 1963.

(e) *planitia* Gmelin, 1789, as published in the binomen *Testudo planitia* (Name No. 751);

(f) *dorsata* Schoepff, 1801, as published in the binomen *Testudo dorsata* (Name No. 752);

(g) *semimembranacea* Hermann, 1804, as published in the binomen *Testudo semimembranacea* (Name No. 753);

(h) *terrestris* Fermin, 1765, as published in the binomen *Testudo terrrestris* (published in a work rejected for the purposes of zoological nomenclature) (Name No. 754).

(4) The following work is hereby placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title Number 65:

Fermin (P.), 1765, *Histoire naturelle de la Hollande équinoxiale.* Amsterdam. (a work in which the author did not apply the principles of binominal nomenclature).

HISTORY OF THE CASE (Z.N.(S.)1459)

The present case was submitted to the office of the Commission by Prof. Robert Mertens and Dr. Heinz Wermuth in May 1960. The application was sent to the printer on 22 September 1960 and was published on 16 June 1961 in *Bull. zool Nomencl.* **18**: 211–213. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4**: 51–56) and to two herpetological serials.

In a note published in *Bull. zool. Nomencl.* **18**: 348, Dr. L. B. Holthuis pointed out that Fermin's 1765 work was non-binominal and that there was therefore no need to use the plenary powers to reject *Testudo terrestris*, published therein. Dr. Holthuis proposed that Fermin's book should be placed on the Official Index.

The proposals of Mertens and Wermuth were supported by Prof. Hobart M. Smith (*Bull. zool. Nomencl.* **19**: 50) and by Dr. L. D. Brongersma, who, in a letter dated 2 January 1962, drew attention to his paper " Notes upon some Sea Turtles " (*Zool. Verhandl. No.* 51) and wrote: " Two names mentioned in the proposal have been discussed by me, viz., *Testudo viridi-squamosa* Lacépède (pp. 21–26), and *Testudo mydas minor* Suckow (pp. 26–27). Although I am in favour of suppressing these names, I do not believe that they are synonyms of *Lepidochelys kempi* (Garman) as supposed by Drs. Mertens and Wermuth ". Dr. Brongersma gave the reasons for his disagreement at greater length in a letter dated 2 April 1962, copies of which were circulated to the Commission during the Voting Period on the case.

DECISION OF THE COMMISSION

On 2 April 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)16 either for or against " the suppression of seven specific names of turtles as set out in paragraphs 8(1), (3) and (4) " of *Bull. zool. Nomencl.* **18** : 213. At the close of the prescribed Voting Period on 2 July 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : Hering, Vokes, do Amaral, Obruchev, Mayr, Bradley, Boschma, Evans, Alvarado, Key, Borchsenius, Jaczewski, Uchida, Tortonese, Riley, Lemche, Miller, Brinck, Munroe, Mertens, Stoll, Kühnelt, Bonnet.

Negative Votes—none (0).

On Leave of Absence—two (2) : Holthuis, Prantl.

Commissioners Poll and Hemming returned late affirmative votes.

Commissioner Hemming made the following comment in returning his Voting Paper : " As regards the Fermin names, I consider either (i) that the application should be granted expressly without prejudice to the status of the book in which they were published or (ii) that the book should be examined and that, if it is non-binominal, the book should be put on the Official Index and the names concerned on the Official Index of Rejected and Invalid Names. A sensible course might be to grant this application, less the Fermin name, adding in the Opinion that a decision on this has been postponed to permit of the examination of the book in which it was published ".

Since a number of Commissioners, obviously having examined Fermin's book, expressed on the Voting Paper their agreement with Dr. Holthuis, it has been decided by the Secretary that Fermin's book should be placed on the Official Index in the Ruling given in the present Opinion.

ORIGINAL REFERENCES

The following are the original references for specific names placed on the Official List and Official Index by the Ruling given in the present Opinion :

blandingii, *Cistuda*, Holbrook, 1838, *N. A. Herpet.*, *Descr. Rept. U.S.* (ed. 1) **3** : 35

dorsata, *Testudo*, Schoepff, 1801, *Naturgesch. Schildkr.*: 158, tabl. 34

fimbriata, *Testudo*, Schneider, 1783, *Allg. Naturgesch. Schildkröten* : 349

flava, *Testudo*, Lacépède, 1788, *Hist. nat. Quadrup. ovip.* **1**, Synops. method.: 135, tab. 16

kempii, *Thalassochelys* (*Colpochelys*), Garman, 1880, *Bull. Mus. comp. Zool. Harvard* **6** : 123

meleagris, *Testudo*, Shaw, 1793, *Natural. Misc.*: tab. 44

minor, *Testudo mydas*, Suckow, 1798, *Anfangsgr. Naturgesch. Thiere* **3** : 30

planitia, *Testudo*, Gmelin, 1789, *in* Linnaeus, *Syst. Nat.* (ed. 13) **1** : 1045

punctularia, *Testudo*, Daudin, 1802, *Hist. nat. gén. partic. Rept.* **2** : 249

semimembranacea, *Testudo*, Hermann, 1804, *Observ. Zool.*: 219

sinensis, *Trionyx* (*Aspidonectes*), Wiegmann, 1835, *Nova Acta Acad. Caes. Leop. Carol.* **17** : 189

temminckii, *Chelonura*, Troost, 1835, *in* Harlan, *Med. phys. Res.*: 158

terrestris, *Testudo*, Fermin, 1765, *Hist. nat. Hollande équinox.*: 51

terrestris, *Testudo*, Forskål, 1775, *Descr. Anim.*: VIII, 12

viridi-squamosa, *Testudo*, Lacépède, 1788, *Hist. nat. Quadrup. ovip.* **1** : Synops. method : 92

CERTIFICATE

I certify that the votes cast on Voting Paper (62)16 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 660.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
16 *August* 1962

OPINION 661

CERASTES LAURENTI, 1768 (REPTILIA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) all designations of type-species for the nominal genus *Cerastes* Laurenti, 1768, made prior to the present Ruling are hereby set aside, and the nominal species *Coluber cerastes* Linnaeus, 1758, is hereby designated to be the type-species of that genus;

(b) the generic name *Aspis* Laurenti, 1768, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Cerastes* Laurenti, 1768 (gender: feminine), type-species, by designation under the plenary powers in (1)(a) above, *Coluber cerastes* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1539.

(3) The specific name *cerastes* Linnaeus, 1758, as published in the binomen *Coluber cerastes* (type-species of *Cerastes* Laurenti, 1768) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1910.

(4) The generic name *Aspis* Laurenti, 1768 (as suppressed under the plenary powers in (1)(b) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1630.

HISTORY OF THE CASE (Z.N.(S.) 724)

The present case was submitted by Dr. Karl P. Schmidt, Dr. Clifford H. Pope and Mr. Arthur Loveridge in December 1952. An application was prepared which was sent to the printer on 8 December 1960 and published on 16 June 1961 in *Bull. zool Nomencl.* **18**: 170–171. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4**: 51–56) and to two herpetological serials. In the light of an objection received from Dr. L. B. Holthuis, Dr. Pope revised the proposals, the amendment being published in *Bull. zool. Nomencl.* **18**: 315, in the form of a note by Dr. W. E. China, Assistant Secretary to the Commission.

Comments were made by Professor Robert Mertens and Dr. Myra Keen (*Bull. zool. Nomencl.* **18**: 354), and by Professor Hobart M. Smith (*Bull. zool. Nomencl.* **19**: 87). A further comment by Professor Mertens and Dr. Konrad Klemmer (*Bull. zool. Nomencl.* **19**: 87) again amended the proposals to be placed before the Commission. The cause of the objection made by Dr. Myra Keen was removed by Dr. Pope's change in his proposals.

Bull. zool. Nomencl., Vol. 20, Part 3. April 1963.

DECISION OF THE COMMITTEE

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)17 either for or against the proposals set out on pages 171 and 315 of volume 18 and page 87 of volume 19 of the *Bulletin of Zoological Nomenclature.* At the close of the prescribed Voting Period on 31 August 1962 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order : Hering, China, Boschma, Binder, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Hemming, Jaczweski, Mertens, Kühnelt.

Negative Votes—none (0).

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—two (2) : Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists and Index by the Ruling given in the present Opinion :

Aspis Laurenti, 1768, *Specimen Medicum :* 105
Cerastes Laurenti, 1768, *Specimen Medicum :* 81
cerastes, Coluber, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 217

CERTIFICATE

I certify that the votes cast on Voting Paper (62)17 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 661.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
13 *September* 1962

OPINION 662

SALAMANDRA TIGRINA GREEN, 1825 (AMPHIBIA): VALIDATION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *operculata* Beauvois, 1799, as published in the binomen *Siren operculata* ;
(b) *philadelphicus* Jarocki, 1822, as published in the binomen *Axolotus philadelphicus* ;
(c) *neocaesariensis* Green, 1818, as published in the combination *Proteus Neo Caesariensis.*

(2) The specific name *tigrina* Green, 1825, as published in the binomen *Salamandra tigrina,* is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1911.

(3) The following specific names, suppressed under the plenary powers in (1) above, are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *operculata* Beauvois, 1799, as published in the binomen *Siren operculata* (Name No. 755);
(b) *philadelphicus* Jarocki, 1822, as published in the binomen *Axolotus philadelphicus* (Name No. 756);
(c) *neocaesariensis* Green, 1818, as published in the combination *Proteus Neo Caesariensis* (Name No. 757).

HISTORY OF THE CASE (Z.N.(S.) 1460)

The present case was submitted by Professor Hobart M. Smith and Dr. Joseph A. Tihen in June 1960. It was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 214–216. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. No comment was received.

DECISION OF THE COMMITTEE

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)18 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 216. At the close of the prescribed Voting Period on 31 August 1962 the state of the voting was as follows:

Affirmative Votes—twenty-four (24), received in the following order: Hering, China, Boschma, Binder, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Hemming, Jaczewski, Mertens, Kühnelt.

Negative Votes—none (0).

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned.—two (2) : Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official List and Index by the Ruling given in the present Opinion :

neocaesariensis, *Proteus*, Green, 1818, *J. Acad. nat. Sci. Philad.* **1** : 358
operculata, *Siren*, Beauvois, 1799, *Trans. amer. philos. Soc.* **4** : 277–281, figs. 1–4
philadelphicus, *Axolotus*, Jarocki, 1822, *Zoologiia* **3** : 179
tigrina, *Salamandra*, Green, 1825, *J. Acad. nat. Sci .Philad.* **5** : 116

CERTIFICATE

I certify that the votes cast on Voting Paper (62)18 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 662.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
17 *September* 1962

OPINION 663

CORVUS BENGHALENSIS LINNAEUS, 1758 (AVES): DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of a type-specimen for the nominal species *Corvus benghalensis* Linnaeus, 1758, made prior to the present Ruling are hereby set aside and it is hereby directed that the species be interpreted by reference to the neotype designated by Biswas, 1961.

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *benghalensis* Linnaeus, 1758, as published in the binomen *Corvus benghalensis*, as defined under the plenary powers by the neotype designated by Biswas, 1961 (Name No. 1912);

(b) *indica* Linnaeus, 1766, as published in the binomen *Coracias indica*, type-locality, as designated by Hartert, 1912, Ceylon (Name No. 1913).

HISTORY OF THE CASE (Z.N.(S.) 1465)

The present case was submitted to the Office of the Commission by Dr. Biswamoy Biswas in August 1960. It was sent to the printer on 22 September 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18**: 217–219. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4**: 51–56) and to twelve ornithological serials. The application was supported by Dr. Krishna Kant Tiwari (*Bull. zool. Nomencl.* **19**: 14).

DECISION OF THE COMMISSION

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)19 either for or against the proposals set out in *Bull. zool. Nomencl.* **18**: 219. At the close of the Prescribed Voting Period on 31 August 1962 the state of the voting was as follows:

Affirmative Votes—twenty-four (24), received in the following order: Hering, China, Boschma, Binder, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Jaczewski, Hemming, Mertens, Kühnelt.

Negative Votes—none (0).

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—two (2): Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official List by the Ruling given in the present Opinion :

benghalensis, Corvus, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 106
indica, Coracias, Linnaeus, 1766, *Syst. Nat.* (ed. 12) **1** : 159

The following is the original reference for a neotype designation for a nominal species concerned in the present Ruling :

For *Corvus benghalensis* Linnaeus, 1758 : Biswas, 1961, *Bull. zool. Nomencl.* **18** : 218–219, Pl. 3

The following is the original reference for the designation of a type-locality for a nominal species concerned in the present Ruling :

For *Coracias indica* Linnaeus, 1766 : Hartert, 1912, *Vogel der paläarktischen Fauna* **2** : 874

CERTIFICATE

I certify that the votes cast on Voting Paper (62)19 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 663.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
17 *September* 1962

OPINION 664

AMPHISBAENA DUBIA RATHKE, 1863 (REPTILIA): SUPPRESSION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *dubia* Rathke, 1863, as published in the binomen *Amphisbaena dubia*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The specific name *dubia* Müller, 1924, as published in the binomen *Amphisbaena dubia*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1914.

(3) The specific name *dubia* Rathke, 1863, as published in the binomen *Amphisbaena dubia* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 758.

HISTORY OF THE CASE (Z.N.(S.) 1466)

The present case was submitted to the office of the Commission by Dr. Carl Gans in September 1960. It was sent to the printer on 8 December 1960 and was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 220. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. Dr. Gans's proposals were supported by Professor Hobart M. Smith (*Bull. zool. Nomencl.* **19** : 22).

DECISION OF THE COMMISSION

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)20 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 220. The following note by the Secretary to the Commission was circulated with the Voting Paper : " It is possible that *A. dubia* could be automatically rejected under Art. 23b of the Code. Rather than put Dr. Gans to the labour of searching the literature to find out whether *A. dubia* has been used in the last 50 years, however, with the consequent waste of time, I have considered it best to submit this case to the Commission in its original form, i.e., as a proposal that *A. dubia* should be suppressed under the plenary powers ". At the close of the prescribed Voting Period on 31 August 1962 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order: Hering, China, Boschma, Binder, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Hemming, Jaczewski, Mertens, Kühnelt.

Negative Votes—none (0).

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—two (2) : Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes. The following comments were made by Commissioners in returning their votes :

Dr. Per Brinck (4.vii.62) : Since Gans says (p.220, para. 3) that : " the name has been referred to in only a single review paper since that time " (i.e. 1863), I wonder if suppression under the plenary powers is necessary, but anyhow, I vote in favour.

Dr. R. Alvarado (16.vii.62) : The action proposed seems to me preferable to regarding *A. dubia* Rathke, 1863, as a " nomen oblitum ", because Rathke's work is a well-known paper for the anatomists, and it may be that the name *dubia* has sometime been used.

ORIGINAL REFERENCES

The following are the original references for the names placed on the Official List and Index by the Ruling given in the present Opinion :

dubia, *Amphisbaena*, Müller, 1924, *Mitt. zool. Mus. Berlin* 2(1) : 86

dubia, *Amphisbaena*, Rathke, 1863, *Abh. math.-phys. Classe Königl. -bayer. Akad. Wiss. München* 9(1) : 128

CERTIFICATE

I certify that the votes cast on Voting Paper (62)20 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 664.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
17 *September* 1962

OPINION 665

SALAMANDRA ERYTHRONOTA RAFINESQUE, 1818 (AMPHIBIA): SUPPRESSION UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *erythronota* Rafinesque, 1818, as published in the binomen *Salamandra erythronota*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The specific name *cinerea* Green, 1818, as published in the binomen *Salamandra cinerea*, is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1915.

(3) The specific name *erythronota* Rafinesque, 1818, as published in the binomen *Salamandra erythronota* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 759.

HISTORY OF THE CASE (Z.N.(S.) 1467)

The present case was submitted to the Office of the Commission by Professor Richard Highton in October 1960. It was sent to the printer on 8 December 1960 and published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 221–222. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two herpetological serials. Prof. Highton's proposals were supported by Professor Hobart M. Smith and Dr. James E. Huheey (*Bull. zool. Nomencl.* **19** : 26).

DECISION OF THE COMMISSION

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)21 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 222. At the close of the prescribed Voting Period on 31 August 1962 the state of the voting was as follows:

Affirmative Votes—twenty-four (24), received in the following order: Hering, China, Boschma, Binder, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Hemming, Jaczewski, Mertens, Kühnelt.

Negative Votes—none (0)

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—two (2): Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes.

Original References

The following are the original references for names placed on the Official List and Index by the Ruling given in the present Opinion :
cinerea, Salamandra, Green, 1818, *J. Acad. nat. Sci. Philad.* **1**(2) : 356
erythronota, Salamandra, Rafinesque, 1818, *Science Journal* **1**(1) : 25

CERTIFICATE

I certify that the votes cast on Voting Paper (62)21 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 665.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
18 *September* 1962

BYRSOCRYPTA HALIDAY, 1838 (INSECTA, HEMIPTERA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS IN FAVOUR OF *PEMPHIGUS* HARTIG, 1839. Z.N.(S.) 431

By F. C. Hottes (*Grand Junction, Colorado, U.S.A.*) and V. F. Eastop (*British Museum (Natural History), London*)

At the end of a paper on new British insects published in the *Annals of Natural History* 2(9), Nov. 1838 : 189–190, A. H. Haliday wrote : " If *Eriosoma fagi* be assumed as the type of this genus [i.e., *Eriosoma* Leach, 1818], it will be necessary to separate those species which inhabit closed follicles [i.e., galls] on the leaves and shoots of plants. In that case I would propose the generic name *Byrsocrypta* for the last." It will be noted that there is no description of the genus and that no type-species is indicated. Nevertheless *Byrsocrypta* is not a nomen nudum as it fulfils the requirements of Articles 12 and 16. In addition Haliday on page 189 in effect cited two gall-forming species of *Eriosoma* which must be included in his generic indication. These were *Eriosoma pallida*, a new species described by Haliday as inhabiting the leaves of the mountain elm (now placed in the genus *Kaltenbachiella* Schouteden, 1906) (= *Gobaishia* Matsumura, 1917) and *Eriosoma ulmi-gallarum* cited without author but presumably the *Aphis gallarum-ulmi* of De Geer, 1773. The oldest name for the latter species is *Tetraneura ulmi* (Linnaeus, 1758) described originally by Linnaeus on page 451 of his *Syst. Nat.* (ed. 10) in his genus *Aphis*. The name is not a primary homonym of *Eriosoma ulmi* (Linnaeus, 1758) which was originally described on page 453 of the same work in the genus *Chermes* Linnaeus.

2. If *Byrsocrypta* Halliday were to be regarded as a genus including all the gall-forming species of *Eriosoma* Leach and the two species described on the previous page were to be disregarded, then the first species to be included in the genus would become automatically the type-species. The first species actually to be included in it was *Aphis bursaria* Linnaeus, 1758, by Westwood in 1840 (*Introd. mod. Classif. Ins.*, Synopsis : 118) who cited it as the type-species of *Byrsocrypta* Haliday which he erroneously spelt as *Brysocrypta*.

3. In 1839, Hartig (*Jabresber. Forstwiss. u. forstl.-naturk. im Jahre* 1836 *u.* 1837 **1**(4) : 645) established the genus *Pemphigus* for three species, *bursarius*, *fraxini*, and *quercus*, which last was queried. The first type-species designation for this genus was by Fitch, 1855 (*Trans. New York State Agric. Soc.* **14** : 7 (footnote)) who wrote : " whilst his [Hartig's] genus *Pemphigus*, with *bursarius* as its type is entitled to stand ".

4. In 1951, Laing (*Ent. mon. Mag.* **86** : 108–109) published a review of the facts concerning the standing of the genus *Pemphigus* Hartig and concluded that Westwood's 1840 citation of *Aphis bursaria* Linnaeus as the type-species of *Byrsocrypta* Haliday was a valid one. In consequence he sank *Pemphigus* Hartig as an objective synonym of *Byrsocrypta* Haliday with *Aphis bursaria* Linnaeus as the common type and reluctantly validated *Tetraneura* Hartig with type *Aphis ulmi* Linnaeus. Laing gave valuable evidence as to the date of Haliday's and Hartig's works.

5. If Haliday's description of *Byrsocrypta* were to be regarded as including *Eriosoma pallida* Haliday and *Eriosoma ulmi-gallarum* Haliday, Westwood's type designation of *Aphis bursaria* Linnaeus would be invalid as it was not one of the originally included species. If the type must be selected from *Eriosoma pallida* Haliday and *E. ulmi-gallarum* Halliday the question at once arises as to whether the latter name refers to a new species or whether as seems more probable it refers to an old species. If it is an old species which species is it ? It seems likely that Haliday was referring to *Aphis gallarum-ulmi* De Geer, 1773. De Geer referred his species to *Aphis ulmi* Geoffroy, who in turn referred to *Aphis* Linnaeus (*Fauna suec.*, No. 705). Thus the *Aphis ulmi* of Geoffroy is the same as the *Aphis ulmi* of Linnaeus. It is not always clear to which *ulmi* Linnaeus the older authors referred but the gall-forming species is *Aphis ulmi* Linnaeus.

6. In 1855, Fitch (*Trans. New York State Agric. Soc.* **14** : 7 (footnote)) wrote of Haliday's *Byrsocrypta* : " We hence regard the *ulmi* [of Geoffroy] and not the *bursarius* as the type of Mr. Haliday's genus." This was in effect the first valid type-designation for *Byrsocrypta*, for although *Aphis ulmi* Geoffroy was not specifically included in Haliday's genus, Fitch recognised that *Eriosoma ulmi-gallarum* was the same as *Aphis ulmi* Geoffroy.

7. In 1841, Hartig (*Z. Ent.* (Germar) **3** : 366) established the genus *Tetraneura* for "*Aphis ulmi* Linnaeus ? " (which he described) and at the same time listed *Tetraneura rugicornis* Hartig. Strictly according to the Code, the type-species of *Tetraneura* cannot be the queried *Aphis ulmi* Linnaeus nor can it be *T. rugicornis* Hartig, for this is a nomen nudum and has never been recognised. *Tetraneura* therefore has the status of a genus published without included species. The first person to place a species in the genus was Kaltenbach (1843, *Mon. Fam. Pflanzenl.* : 189) who included *Tetraneura ulmi* (De Geer) (=*Aphis ulmi* Linnaeus), which thus becomes the type by subsequent monotypy.

8. In 1920, Baker (*U.S. Dept. Agric. Bull.* 826 : 68) pointed out that although Hartig in 1841 had queried *Aphis ulmi* Linnaeus, his good description indicated that the species he actually had before him was *Aphis ulmi* Geoffroy (1762) 1785 (in Fourcroy), not *Aphis ulmi* Linnaeus and consequently gave it the replacement name *Tetraneura ulmifoliae* Baker. It has since been shown by Börner, 1952 (*Mitt. Thüringen Bot. Gesellsch.* **4**(3) : 188) that Baker had confused *Aphis ulmi* Linnaeus, 1758, with *Chermes ulmi* Linnaeus, 1758, and consequently that the type-species of *Tetraneura* Hartig is indeed *Aphis ulmi* Linnaeus (=*Aphis ulmi* Geoffroy—see (5) above). *Tetraneura ulmifoliae* Baker therefore falls as a synonym of *Tetraneura ulmi* (Linnaeus). It is clear, from all this, that *Tetraneura* Hartig becomes an objective synonym of *Byrsocrypta* Haliday with the same type-species, *Aphis ulmi* Linnaeus.

9. It is obvious that there are two alternatives dependant on the interpretation of Haliday's peculiar establishment of *Byrsocrypta* in 1838 :

(a) If *Byrsocrypta* is regarded as a genus without named species then the type must be the first species placed in it. This as we have seen (para. 2 above) was *Aphis bursaria* Linnaeus introduced by Westwood in 1840. If this is accepted then Laing is right in stating that *Pemphigus* Hartig gives way to *Byrsocrypta* Haliday and *Tetraneura* Hartig stands.

(b) If *Byrsocrypta* Haliday is regarded as a genus which included *Eriosoma pallida* Haliday and *Eriosoma ulmi-gallarum* Haliday, then the first valid type-species designation is by Fitch, 1855, and is *Aphis ulmi* Linnaeus. *Tetraneura* Hartig then becomes an objective synonym of *Byrsocrypta* Haliday while *Pemphigus* Hartig stands. Tullgren 1909 (*Ark. Zool.* 5(14) : 182) designated *Eriosoma pallida* Haliday as type-species of *Byrsocrypta*, but this type-designation was antedated by that of Fitch.

It is not suggested that the Commissioners vote on this alternative. The name *Byrsocrypta* Haliday has been very little used and both *Tetraneura* and *Pemphigus* are well-known names in current use, the latter name having given rise to the family-group name PEMPHIGINI.

10. To avoid the confusion described above it is requested that the genus *Byrsocrypta*, so peculiarly established by Haliday, be suppressed under the plenary powers and with its erroneous spelling *Brysocrypta* Westwood placed on the Official Index. The International Commission is therefore requested to take the following action :

(1) to use its plenary powers to suppress the generic name *Byrsocrypta* Haliday, 1838, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :
    (a) *Pemphigus* Hartig, 1839 (gender : masculine), type-species, by designation by Fitch, 1855, *Aphis bursaria* Linnaeus, 1758 ;
    (b) *Tetraneura* Hartig, 1841 (gender : feminine), type-species, by subsequent monotypy, *Aphis ulmi* Linnaeus, 1758 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
    (a) *bursaria* Linnaeus, 1758, as published in the binomen *Aphis bursaria* (type-species of *Pemphigus* Hartig, 1839) ;
    (b) *ulmi* Linnaeus, 1758, as published in the binomen *Aphis ulmi* (type-species of *Tetraneura* Hartig, 1841);

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
    (a) *Byrsocrypta* Haliday, 1838 (as suppressed under the plenary powers in (1) above) ;
    (b) *Brysocrypta* Westwood, 1840 (an incorrect spelling for *Byrsocrypta* Haliday, 1838);

(5) to place the family-group name PEMPHIGINI (emendation of PEMPHIGIDEN) Koch, 1857 (*Die Pflanzenlause Aphiden* : viii) (type-genus *Pemphigus* Hartig, 1839) on the Official List of Family-Group Names in Zoology.

HETERELIS COSTA, 1887 (INSECTA, HYMENOPTERA): REQUEST FOR A DECISION ON THE TYPE-SPECIES Z.N.(S.) 1175

By J. G. Betrem, J. C. Bradley, and C. Jacot-Guillarmod

The purpose of the present application is to insure the application of the name *Heterelis* Costa in the sense which was the intent of its author.

1. Achille Costa (*Prospetto degli imenotteri italiani.* Parte seconda. Naples, 1887, p. 104) established *Heterelis* as a subgenus of " *Elis* " (i.e. *Campsomeris*), citing only one species, namely: " *E. villosa* Fab.". The only bibliographical reference that he gave to " *villosa* Fab." is to " *Scolia villosa* Fab. Ent. syst. II, p. 227, 18 ". That reference, however, is incorrectly quoted. Fabricius did not write " *Scolia villosa* ", but " *T. villosa* ". Schulz (*Berl. Ent. Zeitschr.* 1912, p. 81) after having seen the types, reported that the species is a true *Tiphia*, not a scoliid. Dr. Betrem has seen the type and confirms this fact.

2. It is perfectly clear that Costa meant the common south European scoliid wasp, the male of which Fabricius described as *Scolia quinquecincta* in the same work. For a long period this was incorrectly synonymized with the earlier *Sphex villosa* Fab., so that it has been commonly known as *Scolia villosa* or *Elis villosa.* Costa cited *quinquecincta* in the synonymy of the male, and the characters apply to the female of that species, in no manner to a *Tiphia.* These facts were published by Bradley in 1951 (*Eos*, Tomo extraordinario, p. 430).

3. Since no one has adopted the name *Heterelis* since 1887, it can be regarded as a *nomen oblitum* under Art. 23b of the Code, and as required by that rule, we now refer it to the Commission.

4. If the name is conserved with *Scolia quinquecincta* as type, it will become the name of a subgenus of *Trielis* which we now find it necessary to establish. It will thus be stabilized in the sense in which Costa intended, although now on the basis of structural characters that were unknown to Costa. Pending decision of the Commission we are following this course in a monograph on African Scoliidae now in course of publication.

5. If the Commission were to rule that *Heterelis* is to be conserved with *Tiphia villosa* Fab. as type, then the name would pass out of the Scoliidae.

6. If the Commission were to rule that the name is a *nomen oblitum*, to be added to the appropriate Official Index, no real harm would be done. In that case, as equally under par. 5, *Heterelis* would not be available for the taxon typified by *Scolia quinquecincta* Fab., and we would have to coin a new name for it.

7. The International Commission on Zoological Nomenclature is therefore asked:

(1) to conserve the generic-group nominal taxon *Heterelis* Costa, 1887, with *Scolia quinquecincta* Fab., 1793, as type.

(2) to place *Heterelis* Costa, 1887, type-species by decision recorded under paragraph (1) above, *Scolia quinquecincta* Fab., 1793, on the Official List of Genus-Group Names in Zoology.

(3) to place the following specific name on the Official List of Species-Group Names in Zoology :

quinquecincta Fab., 1793, as published in the binomen *Scolia quinquecincta* (type-species of *Heterelis* Costa, 1887).

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—— 1928. *Treubia*, **9**, supplement, p. 56

GUÉRIN-MÉNEVILLE, T. C. 1839. Zool. **2**, 1st part, 1st div. (*in* Voyage autour du Monde . . . sur la corvette . . La Coquille . . par Duperrey)

SAUSSURE & SICHEL. 1864. Catalogue des espèces de l'ancien genre Scolia. Genève et Paris

SCHROTTKY, C. 1910. *Deutsche Ent. Zeitschr.*, pp. 195–203

BIRONELLA GRACILIS THEOBALD, 1905 (INSECTA, DIPTERA): PROPOSED VALIDATION UNDER THE PLENARY POWERS.

Z.N.(S.) 1244

By Elizabeth N. Marks (*Department of Entomology, University of Queensland, Brisbane*), I. M. Mackerras (*Queensland Institute of Medical Research, Brisbane*), D. J. Lee (*School of Public Health and Tropical Medicine, Sydney*), and M. O. T. Iyengar (*South Pacific Commission, Noumea, New Caledonia*).

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to validate the specific name *gracilis* Theobald, 1905, as published in the combination *Bironella gracilis*, in order to prevent confusion resulting from the rejection of this widely-used name. The facts of the case are set out below, and in support of this application, a list containing all the references that could be traced is given in Annexes 1–3.

(2) The genus *Bironella* was described by F. V. Theobald in 1905 in *Ann. Mus. nat. Hung.* **3** : 69. The type-species, by monotypy, is *Bironella gracilis* Theobald, 1905.

(3) The genus *Bironella* Theobald, 1905, was recognised as a valid genus by all authors publishing on it up to 1924, by half the authors between 1924 and 1938 and by all authors since 1939.

(4) Christophers (1924) treated *Bironella* Theobald, 1905, as a subgenus of *Anopheles* Meigen, 1818. This usage was followed by half the authors publishing on it between 1924 and 1938.

(5) When *Bironella* Theobald, 1905, was treated as a subgenus of *Anopheles* Meigen, 1818, the name *Bironella gracilis* Theobald, 1905, became a secondary homonym of *Anopheles gracilis* Donitz, 1902. Christophers (1924) therefore proposed the new name *Anopheles bironelli* for *Bironella gracilis* Theobald, 1905.

(6) *Anopheles gracilis* Donitz, 1902, is a subjective synonym of *Anopheles gambiae* Giles, 1902 (cf. De Meillon, 1947, *Pub. S. Afr. Inst. Med. Res.* No. 49 : 190). Location of the type of *A. gracilis* is unknown ; Dr. F. Peus has advised us that it is not in the Zoological Museum of the University of Berlin, where the type specimens of other mosquito species described by Donitz are deposited.

(7) The name *Anopheles bironelli* Christophers, 1924, was used by those authors who followed Christophers in treating *Bironella* as a subgenus of *Anopheles*, i.e. half the authors publishing on it between 1924 and 1938.

(8) The name *Bironella gracilis* Theobald, 1905, was used by all authors prior to Christophers (1924), by half the authors publishing on it between 1924 and 1938, and by all authors between 1939 and 1957.

(9) Stohe (1957) pointed out that *Bironella gracilis* Theobald, 1905, a rejected secondary homonym, falls as a synonym of *Bironella bironelli* (Christophers, 1924). The name *Bironella bironelli* (Christophers, 1924) has in addition been used twice for this species (between 1924 and 1938).

Bull. zool. Nomencl., Vol. 20, Part 3. April 1963.

(10) The grounds of this application are :

(a) The union of the nominal genera *Bironella* and *Anopheles* by Christophers (1924) was at that time, and has since continued to be, widely regarded by specialists in the Culicidae as being unjustified on taxonomic grounds. Christophers himself (1924, p. 4) stated that his personal bias was towards recognition of *Bironella* as a genus.

(b) *Bironella gracilis* Theobald, 1905, is a well-established name in current use, and has been in continuous use for the species since it was first described. Of the authors who between 1924 and 1938 used the name *Anopheles bironelli* Christophers, 1924, those who continued to publish reverted to the use of the name *Bironella gracilis* Theobald, 1905.

(c) The name *Bironella bironelli* (Christophers, 1924) had only been used twice, and then inconsistently (see Annexe 3), for this species prior to 1957. Reintroduction of this name will upset the present stable nomenclature and lead to confusion in the literature.

(11) For the reasons set forth above, we ask the International Commission on Zoological Nomenclature :

(1) to Rule under the plenary powers that *Bironella gracilis* Theobald, 1905, be not invalidated by its senior secondary homonym *Anopheles gracilis* Donitz, 1902 ;

(2) to place the generic name *Bironella* Theobald, 1905 (gender : feminine), type-species, by monotypy, *Bironella gracilis* Theobald, 1905, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *gracilis* Theobald, 1905, as published in the binomen *Bironella gracilis* (type-species of *Bironella* Theobald, 1905) on the Official List of Specific Names in Zoology ;

(4) to place the specific name *bironelli* Christophers, 1924, as published in the binomen *Anopheles bironelli* (a junior objective synonym of *gracilis*, *Bironella*, Theobald, 1905) on the Official Index of Rejected and Invalid Specific Names in Zoology.

ANNEXE 1

Particulars of the usage of the name *Bironella gracilis* Theobald, 1905.

Theobald, 1905, *Ann. Mus. nat. Hung.* **3 :** 69 (original publication of name *Bironella gracilis*)
Theobald, 1907, *Monogr. Culicidae* **4 :** 121
Theobald, 1910, *Monogr. Culicidae* **5 :** 74
Taylor, 1919, *Proc. Linn. Soc. N.S.W.* **43 :** 827
Swellengrebel, 1921, *Meded. Kolon. Inst. Amst.* 15 (Trop. Hyg.) **10 :** 142
Brug & De Rook, 1922, *Bull. Soc. Path. Exot.* **15 :** 305
Edwards, 1922, *Bull. ent. Res.* **13 :** 98
Heydon, 1923, *Med. J. Aust.* (1923) **2 :** 626
Cooling, 1924, *Serv. Publ. Dep. Hlth. Aust.* (*Trop. Div.*) No. 2 : 7
Cooling, 1924, *Serv. Publ. Dep. Hlth. Aust.* (*Trop. Div.*) No. 3 : 136
Edwards, 1924, *Bull. ent. Res.* **14 :** 355
Hill, 1925, *Proc. Roy. Soc. Vic.* **37 :** 65

Ferguson, 1926, *Proc. Pan-Pac. Sci. Congr.* (1923) **2** : 1479
Edwards, 1930, *Bull. ent. Res.* **21** : 287
Taylor, 1930, *Trans. 7th Congr. Far East. Ass. Trop. Med.* (1927) **3** : 158
Soesilo & van Slooten, 1931, *Meded. Dienst. Volksgezondh. Ned.-Ind.* **71** : 129 (used 3 times—see also Annexe 3)
Strickland & Chowdhury, 1931, Anopheline larvae of countries from India and Orient to Antipodes, Calcutta : 3
Edwards, 1932, *Genera Insect.* **194** : 33
Christophers, 1933, Diptera, Vol. IV. Fauna of British India : 96
Brug, 1934, *Geneesk. Tijdschr. Ned.-Ind.* **74** : 72
Taylor, 1934, *Serv. Publ. Dep. Hlth. Aust.* (*School Pub. Hlth. Trop. Med.*) No. 1 : 8
Russell, Rozeboom & Stone, 1943, Keys to the Anopheline Mosquitoes of the World : 139
Smart, 1943, Insects of Medical Importance : 147
Lee & Woodhill, 1944, *Monogr. Dep. Zool. Univ. Sydney* **2** : 51
Belkin, Knight & Rozeboom, 1945, *J. Parasit.* **31** : 246
King & Hoogstraal, 1946, *J. Nat. Malar. Soc.* **5** : 155
Laird, 1946, *Trans. Roy. Soc. N.Z.* **75** : 469
Brug & Bonne-Wepster, 1947, *Chron. Nat.* 103 (10–11) : 4
Mackerras, 1947, *Med. J. Aust.* (1947) **1** : 5
Roberts, 1948, *Proc. Roy. Soc. Qd.* **59** : 94
Smart, 1948, Insects of Medical Importance (2nd edn.) : 152
King, 1949, in Boyd, Malariology **1** : 509
Stoker & Koesoemawinangoen, 1949, Illustrated map of the Anopheline Imagines of Indonesia (English translation), Djakarta : XIV
Bonne-Wepster, 1951, *Docum. Neerl. Indones. Morb. Trop.* **3** : 67
Bonne-Wepster & Swellengrebel, 1953, Anopheline Mosquitoes of Indo-Aust. region, Amsterdam : 52
Horsfall, 1955, Mosquitoes. Their Bionomics and Relation to Disease : 43
Iyengar, 1955, *S. Pacif. Comm. Tech. Pap.* **86** : 21
Laird, 1956, *Bull. Roy. Soc. N.Z.* **6** : 7

ANNEXE 2

(a) Particulars of the usage of the name *Anopheles bironelli* Christophers, 1924.

Christophers, 1924, *Ind. Med. Res. Mem.* **3** : 5, 16 (new specific name for *Bironella gracilis* Theobald), preoccupied by *Anopheles gracilis* Donitz, 1902
Brug, 1928, *Geneesk. Tijdschr. Ned.-Ind.* **68** : 921
De Rook & Soesilo, 1930, *Geneesk. Tijdschr. Ned.-Ind.* **70** : 476
Soesilo, 1930, *Geneesk. Tijdschr. Ned.-Ind.* **70** : 695
Mooij, 1932, *Geneesk Tijdschr. Ned.-Ind.* **72** : 80. (*A. bironella* (sic).)
Swellengrebel & Rodenwaldt, 1932, Die Anophelen von Niederlandisch-Ostindien, Jena : 55
Elsbach, 1937, *Geneesk. Tijdschr. Ned.-Ind.* **77** : 1044
De Rook, 1938, in Klein, Nieuw Guinea **3** : 856

(b) Particulars of additional usage of the name *Bironella* Theobald, 1905, as a subgeneric name in the genus *Anopheles* Meigen, 1818, with reference to species other than *Bironella gracilis* Theobald, 1905.
Soesilo, 1932, *Geneesk. Tijdschr. Ned.-Ind.* **72** : 1035. (See also Annexe 3.)

ANNEXE 3

Particulars of the usage of the name *Bironella bironelli* (Christophers, 1924).
Soesilo & van Slooten, 1931, *Meded. Dienst. Volksgezondh. Ned.-Ind.* **71** : 129. (Used once—see also Annexe 1.)
Soesilo, 1932, *Geneesk. Tijdschr. Ned.-Ind.* **72** : 1035. (See also Annexe 2(b).)
Stone, 1957, *Ann. ent. Soc. Amer.* **50** : 171

TRITURUS (*GYRINOPHILUS*) *LUTESCENS* RAFINESQUE, 1832 (AMPHIBIA, CAUDATA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1516

By Ronald A. Brandon (*Department of Zoology, University of Illinois, Urbana, U.S.A.*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to suppress the specific name *lutescens* Rafinesque, 1832 (*Atlantic Journ.* **1**(3) : 121) as published in the combination *Triturus lutescens*, and to secure that the name *duryi* Weller, 1930 (*Proc. Jr. Soc. Nat. Sci. Cincinnati* **1**(5–6)) as published in the combination *Pseudotriton duryi*, shall be the subspecific name of the form currently known as *Gyrinophilus porphyriticus duryi*.

2. The name *lutescens*, as proposed in 1832 by Rafinesque in the combination *Triturus lutescens*, remained unused until 1942. Mittleman (1942, *Proc. New England Zool. Club* **20** : 25–42), as first reviser, applied the name *lutescens*, in the combination *Gyrinophilus lutescens*, to a population that he considered to be distinct from *Gyrinophilus porphyriticus duryi* (Weller, 1930). Mittleman characterized *Gyrinophilus lutescens* as being a neotenic, cave-adapted species, in contrast to the metamorphosing, epigean *Gyrinophilus porphyriticus duryi*.

3. The conditions of Rafinesque's description of *Triturus lutescens*, by a process of elimination, can apply only to the form currently known as *Gyrinophilus porphyriticus duryi*.

4. Recent investigations by Newcomer (1961, *The ASB Bull.* **8**(2) : 21) and by myself in connection with a monographic study of the genus *Gyrinophilus*, have shown that *Gyrinophilus lutescens* (Rafinesque, 1832) was applied by Mittleman to larvae of *Gyrinophilus porphyriticus duryi* (Weller, 1930). Therefore, the name *lutescens*, as used in the combination *Triturus lutescens* Rafinesque, 1832, is a senior synonym of the name *duryi*, as used in the combination *Pseudotriton duryi* Weller, 1930.

5. Although the literature dealing with the form currently known as *Gyrinophilus porphyriticus duryi* (Weller, 1930) is not extensive (20 published references have been found), all but four used either *Gyrinophilus porphyriticus duryi* or *Gyrinophilus duryi*. Three of the references using *Gyrinophilus lutescens* are lists only, and the fourth is Mittleman's article applying the name unknowingly to larval *Gyrinophilus porphyriticus duryi*. All four authors using the combination *Gyrinophilus lutescens* indicated that it applied to a supposedly valid (although actually invalid) taxon distinct from *Gyrinophilus porphyriticus duryi*.

6. As the combination *Gyrinophilus porphyriticus duryi* (or *Gyrinophilus duryi*) has been used consistently in publications since 1930, and as the long obscure *lutescens* Rafinesque, 1832, as published in the binomen *Triturus lutescens*, has been used only a few times in the literature since 1942 (and in these cases was applied to a taxon regarded to be distinct from *Gyrinophilus*

porphyriticus duryi), the replacement of *duryi* by *lutescens* for the sake of priority would not be in the interests of stability in nomenclature, and would result in considerable confusion.

7. For the reasons noted in the present application, I ask the International Commission on Zoological Nomenclature :

(a) to use its plenary powers to suppress the specific name *lutescens* Rafinesque, as published in the combination *Triturus lutescens*, for the purposes of the Law of Priority, but not for the purposes of the Law of Homonymy ;

(b) to place the specific name *duryi* Weller, 1930, as published in the combination *Pseudotriton duryi*, on the Official List of Specific Names in Zoology ;

(c) to place the name *lutescens* Rafinesque, 1832, as published in the combination *Triturus lutescens* (suppressed under the plenary powers in (a) above) on the Official Index of Rejected and Invalid Specific Names in Zoology.

SIGARA FABRICIUS, 1775, AND *MICRONECTA* KIRKALDY, 1897 (INSECTA, HEMIPTERA) : PROPOSED STABILIZATION IN ACCORDANCE WITH GENERALLY ESTABLISHED USAGE. Z.N.(S.) 1519

By T. Jaczewski (*Institute of Zoology, Polish Academy of Sciences, Warsaw*)

The present application is, in a sense, supplementary to Opinion 281 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* **6** : 207–223) and to the application by Dr. T. T. Macan published recently in *Bull. zool. Nomencl.* **18** : 328–329. Its aim is to stabilize several important names in the CORIXIDAE in accordance with generally established usage. The particulars are as follows :

2. In 1775 Fabricius (*Syst. Ent.* : 691) established the generic name *Sigara* with only one species originally included, *Notonecta striata* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 439).

3. As has been shown by T. T. Macan in his recent application (op. cit.), it is impossible to identify with certainty the species which Linnaeus named *Notonecta striata* and it is also clear that the original material no longer exists. It is also strongly suspected that Fabricius listed under his *Sigara striata* a mixture of several species as seems indicated by his quotations of earlier authors. In 1807 Illiger (*Fauna Etrusca* **2** : 353–354) restricted the use of the name *Sigara striata* to the medium-sized species which he held for the genuine species " Linnaeana " and corrected at the same time the earlier error of Latreille (*Hist. nat. gén. partic. Crust. Ins.* **12** [1804–1805] : 289) who applied the name *Corixa striata* to a large species, ignoring the original diagnosis given by Linnaeus (op. cit.). For that large species, i.e., for *Corixa striata* Latreille, [1804–1805], nec Linnaeus, 1758, Illiger (op. cit.) introduced the specific name *punctata* which was placed on the Official List of Specific Names as Name No. 110 in Opinion 281, simultaneously with the placing of the generic name *Corixa* Geoffroy, 1762, on the Official List of Generic Names as Name No. 708.

4. Illiger has been followed by Fieber, who was the first to give recognizable redescriptions of *Corisa striata* (Linnaeus, 1758), accompanied by several drawings of which the outline sketch of the male pala is in this connection of particular value (1848, *Bull. Soc. Nat. Moscou* **21**(1) : 523, 538, 539, pl. 10, figs. 15, 25 ; 1851, *Species generis Corisa* : 30–31, 48, pl. 2, fig. 11 [sep.], also 1852, *Abhandl. Böhm. Ges. Wiss.* (5) **7** : 242–243, 260, pl. 2, fig. 11). Subsequently, the same taxonomic interpretation of *Notonecta striata* Linnaeus, 1758, has been adopted by Kuhlgatz (1909, *Die Süsswasserfauna Deutschlands* **7** : 84, 88, 97, figs. 70, 90–92) and by Jaczewski (1924, *Ann. Zool. Mus. Pol. H.N.* **3** : 35, 58–63, 96, figs. 60–64, pl. 1, figs. 1–2). A good historical account of the case has also been published by F. Schumacher (1924, *Deutsche Entom. Zeitschr.* : 337–339). This taxonomic interpretation of the specific name *striata* Linnaeus, 1758, has been universally accepted by hemipterists since 1924, and its final confirmation is aimed at by the application of Macan for the designation of a neotype for *Notonecta striata* Linnaeus.

5. W. E. Leach (1817, *Trans. linn. Soc. London* **12**(1) : 11, 14–15) seems

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to have been the first author who applied the generic name *Sigara* to *Notonecta minutissima* Linnaeus, 1758, and its close relatives. Such an application of the generic name in question was clearly invalid as *Notonecta minutissima* was not a species originally included by Fabricius when he was establishing his genus *Sigara* in 1775. Nevertheless, the action of Leach, though invalid, was followed by a number of authors, among them Fieber in 1844 in his well-known monograph of the genus *Sigara* Leach, 1817, nec Fabricius, 1775 (*Entomologische Monographien* : 11–15, pl. 1, figs. 11–26 [sep.], also 1845, *Abhandl. Böhm. Ges. Wiss.* (5) **3** : 289–293, pl. 1, figs. 11–26). The great authority of Fieber in hemipterology at that period caused the general acceptance of this erroneous application of the generic name *Sigara* during the second half of the nineteenth century.

6. Not until 1897, i.e., exactly 80 years after the invalid action taken by Leach, did Kirkaldy (*Entom.*, London **30** : 260) draw attention to the fact that the use of the generic name *Sigara* for *Notonecta minutissima* Linnaeus, 1758, and its relatives was inadmissible and publish the replacement generic name *Micronecta* Kirkaldy, 1897, designating as its type-species *Notonecta minutissima*. This action of Kirkaldy's found immediate general acceptance.

7. When, in Opinion 281, the generic name *Corixa* Geoffroy was added to the Official List of Generic Names in Zoology, the addition of its unjustified emendation *Corisa* Amyot & Serville, 1843 (*Hist. nat. Ins.*, *Hémipt.* : 445) to the Official Index of Invalid and Rejected Generic Names was overlooked. The publication of this emendation was accompanied (op. cit. : 446) by the following clear and unambiguous statement : " Geoffroy a mal orthographié le nom de ce genre, qu'il appelle Corise en français (ce qui prouve qu'il a voulu le tirer du grec *Κόρις*, Punaise), en écrivant *Corixa* en latin." As an unjustified emendation the generic name *Corisa* Amyot & Serville, 1843, is under Art. 33a(ii) of the Code merely a junior objective synonym of the generic name *Corixa* Geoffroy, 1762. Unfortunately, a number of authors in the second half of the nineteenth century accepted this unjustified emendation, among them Fieber in his fundamental papers devoted to the CORIXIDAE (1848, op. cit. ; 1851, op. cit.), although in his earlier publications he used the correct original spelling *Corixa* (e.g., 1844, op. cit. : 12 [sep.]). This caused much confusion in nomenclature for several decades.

8. Family-group names have been derived from the generic names *Corixa* Geoffroy, 1762, *Corisa* Amyot & Serville, 1843, *Sigara* Leach, 1817, nec Fabricius, 1775, and *Micronecta* Kirkaldy, 1897. No family-group name seems to have been based on *Sigara* Fabricius, 1775.

9. In accordance with the above, the International Commission on Zoological Nomenclature is asked :

(1) to place the following generic names on the Official List of Generic Names in Zoology :
   (a) *Sigara* Fabricius, 1775 (gender : feminine), type-species, by monotypy, *Notonecta striata* Linnaeus, 1758 ;
   (b) *Micronecta* Kirkaldy, 1897 (gender : feminine), type-species, by original designation *Notonecta minutissima* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 439) ;

(2) to place the specific name *minutissima* Linnaeus, 1758, as published in the binomen *Notonecta minutissima* (type-species of *Micronecta* Kirkaldy, 1897) on the Official List of Specific Names in Zoology ;

(3) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  (a) *Sigara* Leach, 1817 (a junior homonym of *Sigara* Fabricius, 1775) ;
  (b) *Corisa* Amyot & Serville, 1843 (an unjustified emendation of *Corixa* Geoffroy, 1762) ;

(4) to place the following family-group names on the Official List of Family-Group Names in Zoology :
  (a) CORIXIDAE (correction of CORIXIDA) [Leach, 1815] (*in* Brewster's *Edinb. Ency.* **9**(1) : 124) (type-genus *Corixa* Geoffroy, 1762) ;
  (b) MICRONECTINAE Jaczewski, 1924 (*Ann. Zool. Mus. Pol. N.H.* **3** : 3) (type-genus *Micronecta* Kirkaldy, 1897) ;

(5) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
  (a) CORIXIDA [Leach, 1815] (type-genus *Corixa* Geoffroy, 1762) (an incorrect original spelling for CORIXIDAE), and all subsequent incorrect spellings of family-group names based on the generic name *Corixa* Geoffroy, 1762 ;
  (b) CORISIDES Amyot & Serville, 1843 (op. cit. : LI, 444) (type-genus *Corisa* Amyot & Serville, 1843) (a junior objective synonym of CORIXIDAE [Leach, 1815]) and all subsequent spelling variants of family-group names based on the rejected and invalid generic name *Corisa* Amyot & Serville, 1843 ;
  (c) SIGARIDAE Douglas & Scott, 1865 (*The British Hemiptera* : 50, 615, 627, pl. 20) (type-genus *Sigara* Leach, 1817) (based on a name rejected as a junior homonym).

PISANIA BIVONA, 1832 (MOLLUSCA : GASTROPODA) : ITS TYPE SPECIES, AND PROPOSED ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY. Z.N.(S.) 1521

By Harald A. Rehder (*Smithsonian Institution, Washington, D.C., U.S.A.*)

This application deals with a generic name that has been in general use since its inception over a hundred years ago, but whose first valid designation of a type-species is based on a name that is essentially a *nomen dubium*. In order to place the generic name on a firm foundation it is here proposed to request the use of the Commission's plenary powers to invalidate the first apparently valid type-designation, to accept the next type-species designation, and to place the name and its type-species on the proper Official Lists.

2. The genus *Pisania* was founded by Bivona in 1832 (*Effem. sci. lett. Sicilia* **2** : 8) for three new species of Mediterranean marine mollusks. Not only did the author give a detailed generic description—shell and soft parts—but the three species were well described and figured. These three species : *P. striatula*, *P. laevigata*, and *P. nodulosa*, are readily recognisable as species now bearing the following names respectively : *Pisania striata* (Gmelin, 1791) ; *Mitrella scripta* (Linnaeus, 1758) ; and *Pisania* (*Aplus*) *dorbignyi* (Payraudeau, 1826).

3. As the first species is the only one that will concern us, and since the synonymy cited under this species is involved in the presentation of this case, I will list the synonymy cited by Bivona under *Pisania striatula* together with comments as to their modern equivalents :

Purpura fasciolaria Lam. Hist. 7, p. 249 ? (*Pisania striata* (Gmelin))
Purpura variegata Risso Hist. 4, p. 167 ? (? *Pisania striata* (Gmelin))
Voluta syracusana Gmel., p. 3456, n. 78 (? *Mitrella scripta* (Linnaeus))
Lister t. 964, f. 49, e (*Columbella flugurans* Lamarck)
Bonan. Recr. 3, f. 40 (? *Mitrella scripta* (Linnaeus))

4. The first author to accept and use *Pisania* was Philippi (1841, *Arch. Naturgesch.* **7** : 265–266), who added several species to the genus. For Bivona's first species he used the name *Murex pusio* Linnaeus, with which he also synonymized *Buccinum maculosum* Lamarck. He was one of many early workers who, with admittedly some justification, used Linnaeus's name *pusio* for the Mediterranean, instead of the West Indian species with which it is now associated. This has been the reason for the frequent but invalid citation of *pusio* Linnaeus as the type-species of *Pisania*, earlier workers having in mind the Mediterranean species, and later workers transferring this concept to the West Indian shell. Both species are now considered to be congeneric.

5. Gray in 1847 (*Proc. zool. Soc. London* **15** : 133) gave "*Bucc. maculosum*" as the type-species of *Pisania*, but as this is not one of the original species, the designation is invalid. In the same year, but a month later, Hermannsen (1847, *Ind. Gen. Malac.* **2** : 274) designated as type-species *Voluta syracusana* Gmelin, a valid designation, as it is one of the synonyms listed by Bivona.

This same designation was given by Bucquoy, Dautzenberg, & Dollfus (1882, *Moll. Marins Roussillon* **1** : 25).

6. A difficulty arises when we try to determine the identity of *Voluta syracusana* Gmelin (1791, *Syst. Nat.* (ed. 13) : 3456). Although many workers, beginning with Bivona and Philippi, have cited this species as a synonym of *Pisania striata*, this assignment is not at all obvious. The species is based on Bonanni's description and figure (1680, *Recr. Mebtus Oculi* **2** : 118, fig. 40). Gmelin describes his shell as turreted and compares it with the preceding species in his work, *Voluta turrita* (*Latirus turritus*), saying it is narrower and more elongate. Moreover, it is described as being white, with dark, wavy axial stripes, and smooth (Bonanni uses the word " nitens "). Hanley (1855, *Ipsa Linnaei Conch.* : 394) suggests that it was meant for the shell now known as *Mitrella scripta*, a verdict with which I am inclined to agree, as Gmelin's brief description seems to point to this identification. Bonanni's figure could be conceived as a poor representation of the species, although by a stretch of the imagination it could also be called a poor figure of *Pisania striata*. The latter is, in fact, the species with which workers like Deshayes (1844, *Hist. nat. Anim. s. Vert.* (ed. 2) **10** : 165), Philippi (1836, *Enum. Moll. Sicilia* **1** : 224), Petit (1869, *Cat. Moll. Test. Mers Europe* : 169), and Monterosato (1884, *Nomencl. Gen. e Spec. Medit.* : 113) have synonymized Gmelin's *Voluta syracusana*, the latter two authors doing so with a query. Bonanni's figure was also cited by Linnaeus under his *Murex pusio*, and here may be another reason for later authors equating *Voluta syracusana* with *Pisania striata*.

7. It is because of the uncertainty regarding the identity of *Voluta syracusana* Gmelin that I suggest that the type-species designation of Herrmannsen for *Pisania* be declared invalid, and that the next designation, that of Iredale (1915, *Trans. Proc. New Zealand Inst.* **47** : 464), of *Pisania striatula* Bivona as type-species, be accepted. It might be mentioned here that Iredale erroneously equates this species with " *B.* [*uccinum*] *maculosum* Gmelin " instead of *B. maculosum* Lamarck.

8. It is requested, therefore, that the International Commission on Zoological Nomenclature take the following action :—

(1) to use its plenary powers to set aside all designations of type-species for the genus *Pisania* Bivona, 1832, prior to that by Iredale, 1915, of *Pisania striatula* Bivona, 1832 ;

(2) to place the generic name *Pisania* Bivona, 1832 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Pisania striatula* Bivona, 1832, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *striata* Gmelin, 1791, as published in the binomen *Murex striata* (oldest available name for the type-species of *Pisania* Bivona, 1832) on the Official List of Specific Names in Zoology.

CTENOPHTHALMUS KOLENATI, 1856 (INSECTA, SIPHONAPTERA) PROPOSED RETENTION UNDER THE PLENARY POWERS AND RELATED MATTERS. Z.N.(S.) 1523

By G. H. E. Hopkins (*Honorary Associate, British Museum* (*Natural History*))

The present application deals with an instance in which Kolenati's methods (see Rothschild, 1911, *Novit. zool.* **18** : 48–56) have produced an extremely complicated situation which could cause great confusion in the systematics of one of the most important genera of fleas, and which seems to me incapable of resolution except by recourse to the plenary powers.

2. The genus *Ctenophthalmus* was described by Kolenati in 1856 (*Parasiten der Chiroptern*, Brünn edition, p. 33), though the name is often quoted from p. 33 of the almost identical Dresden edition, published in 1857. No type-species was designated in either edition but the included species, which were described in a very few words, were *Ctenophthalmus musculi*, *C. talpae*, *C. canis* and *C. felis*. No date or author's name was given for any of these nominal species, but reference to Kolenati's paper of 1863 (see para. 3) shows that all of them were apparently derived from Bouché, 1835 (*Nova Acta Leop.-Carol.* **17** : 501–508) ; it is doubtful, in my opinion, whether it is legitimate to use a later paper, even by the same author, to interpret nomenclatorial facts in the earlier paper. If it is not legitimate, then *Ctenophthalmus musculi* and *C. talpae* (the only two nominal species originally included in *Ctenophthalmus* which concern us at present) must take the date 1856 and the authorship of Kolenati, who described the former as having " ein Rückenctenidium und an den Augen ein dreizähniges [Ctenidium]", while the latter has " ein Rückenctenidium und an den Augen ein 4zähniges [Ctenidium]". If, on the other hand, the names are to be ascribed to Bouché, both were wrongly applied in Kolenati's paper of 1856, for the species which Bouché named *Pulex musculi* (a junior homonym of *Pulex musculi* Dugès, 1832) has four spines in the genal comb whereas that which he named *Pulex talpae* (a junior homonym of *Pulex talpae* Curtis, 1826) has three ; the probable explanation is that Kolenati inadvertently transposed the " drei " and the " 4 " when writing his paper. Subsequent authors have evidently regarded *Ctenophthalmus musculi* Kolenati, 1856, and *C. talpae* Kolaneti, 1856, as unavailable, either in the incorrect belief that they are junior homonyms of the same specific names used earlier in *Pulex* or because it is clear from Kolenati's work of 1863 that both are misapplications of the same specific names as they were used by Bouché, for (so far as I am aware) not a single subsequent author has used either *musculi* Kolenati or *talpae* Kolenati as the valid specific name of a flea. It will save later confusion if it is mentioned at this point that the species to which Kolenati applied the specific name *musculi* in 1856 is now universally known as *Ctenophthalmus bisoctodentatus* Kolenati, 1863, while the one for which he used the name *talpae* in 1856 is known as *Leptopsylla segnis* (Schönherr, 1811). It may also be useful to mention that the generic part of the name of the latter is No. 710

in the Official List of Generic Names in Zoology while the specific name is No. 116 in the Official List of Specific Names in Zoology.

3. In 1863 (*Hor. Soc. ent. ross.* **2** : 35) Kolenati redescribed the genus *Ctenophthalmus* and (: 37) restricted it by splitting off a subgenus *Ctenopsyllus* Kolenati, 1863 (No. 98 in the Official Index of Rejected and Invalid Generic Names in Zoology), but without designating a type-species for either subgenus. He placed *Pulex talpae* Bouché as a synonym of *Ctenophthalmus bisoctodentatus* Kolenati, 1863, in the nominate subgenus and *Pulex musculi* Bouché as a synonym of *Ctenopsyllus quadridentatus* (Kolenati, 1859) in the subgenus *Ctenopsyllus* Kolenati, 1863. Clearly he had reversed his 1856 application of the specific names *talpae* and *musculi*, for the species to which he applied the former name in 1856 was stated to have 4 genal spines but is now (1863) placed as a synonym of a species described and figured with 3, while *musculi* (described in 1856 as having 3 genal spines) is placed in 1863 in the synonymy of a species described and figured with 4. It is this reversal, not always appreciated by subsequent authors, that is the origin of most of the subsequent confusion.

4. Baker (1904, *Proc. U.S. nat. Mus.* **27** : 371) published a list of genera of fleas in which one entry reads " *Ctenophthalmus* Kolenati, 1863 ; type *bisoctodentatus* Kolenati ". He did not mention on p. 371 the fact that Kolenati had published the generic name in *Parasiten der Chiroptern* but gave a reference to this work (with the date 1857, that of the Dresden edition) on p. 420.

5. Oudemans (1908, *Ent. Ber., Amst.* **2** : 219, 220) distinguished between the genus *Ctenophthalmus* Kolenati, 1856, and the subgenus *Ctenophthalmus* Kolenati, to which he attributed the date 1863. He stated (: 219) that the type of the former is *Pulex musculi* (for which he gave neither date nor author's name) and (: 220) that *Ctenopsyllus* Kolenati, 1863, is a synonym. He also (: 220) renamed the subgenus *Ctenophthalmus* Kolenati, 1863, as *Spalacopsylla nom. nov.*, with *Pulex talpae* Bouché as its type, evidently having failed to realise that the species to which Kolenati applied the specific names *musculi* and *talpae* in 1863 are not the same as those to which he applied the same names when he described the genus *Ctenophthalmus* in 1856 (see para. 3, above). And he took no notice of the fact that he himself had described the nominal genus *Spalacopsylla* two years earlier (1906, *Tijdschr. Ent.* **49** : lxiii) when he wrote " *Typhlopsylla* (=*Spalacopsylla* Oudms.)", thus making *Spalacopsylla* a *nomen novum* for *Typhlopsylla* Taschenberg, 1880 and a junior subjective synonym of *Ischnopsyllus* Westwood, 1833.

6. In a number of subsequent papers (the last published in 1915) Oudemans used *Spalacopsylla* for the genus that almost all others called *Ctenophthalmus* and *Ctenophthalmus* for that for which others used either *Ctenopsyllus* (no. 98 in the Official Index of Rejected and Invalid Generic Names in Zoology), its erroneous emendation *Ctenopsylla*, or *Leptopsylla* Jordan & Rothschild, 1911. The only other to follow Oudemans in using *Spalacopsylla* and *Ctenophthalmus* in this sense was Dalla Torre, in an uncritical list published in 1924, though Pinto (1930, *Trat. Parasit.* **1** : 344) applied the generic name *Spalacopsylla* Oudemans to a species which belongs to neither of the two genera under discussion.

7. Hopkins (1951, *Ann. Mag. nat. Hist.* (12) **4** : 529–544) took the view

that Baker's selection in 1904 (see para. 4) of a type-species for *Ctenophthalmus* Kolenati, 1863, could not be held to apply to *Ctenophthalmus* Kolenati, 1856, especially as Kolenati did not in 1856 mention the name *bisoctodentatus* (this nominal species not having been described until 1863), and that Oudemans' selection of *Pulex musculi* [Dugès, 1832 or Bouché, 1835] was invalid because Kolenati (1863, as his own first reviser) had excluded this species from the subgenus *Ctenophthalmus s. str.* In order to maintain continuity of usage, therefore, Hopkins (: 539) selected as type-species of *Ctenophthalmus* Kolenati, 1856 "*Ctenophthalmus musculi* Kolenati, 1856, that is to say, the species with 3 spines in the genal comb to which Kolenati misapplied the name *musculi* in 1856 and which he redescribed as *Ctenophthalmus bisoctodentatus* in 1863".

8. Hopkins's view with regard to previous selection of a type-species for the genus was, however, not in accord with the current International Code of Zoological Nomenclature (published in 1961), for Article 67(g) provides that "if, in designating the type-species for a nominal genus, an author refers the generic name to an author or date other than those denoting the first establishment of the genus . . . he is nevertheless to be considered, if the species was eligible, to have designated the type-species correctly", so Baker's selection is valid provided that *Ctenophthalmus bisoctodentatus* Kolenati, 1863 was eligible for designation as type-species of *Ctenophthalmus* Kolenati, 1856, but this point is not beyond doubt. Naturally this nominal species could not have been included by name in the description of *Ctenophthalmus* published by Kolenati in 1856, but it is generally accepted that the species was mentioned in the original description of the genus, since it is considered to be the one to which Kolenati applied the name *musculi* in 1856 (though he used it for a quite different species in 1863). The position is much the same with regard to *Spalacopsylla* Oudemans, 1908 (see para. 5), since the only species with the specific name *musculi* mentioned by Kolenati in 1856 is *Ctenophthalmus musculi*, with 3 genal spines, which is accepted as being the same as *Ctenophthalmus bisoctodentatus* Kolenati, 1863. In any case, *Spalacopsylla* Oudemans, 1908, is a junior homonym of *Spalacopsylla* Oudemans, 1906.

9. Although all modern siphonapterologists are in agreement in regarding *Ctenophthalmus bisoctodentatus* Kolenati, 1863, as the type-species of *Ctenophthalmus* Kolenati, 1856, and the International Code of Zoological Nomenclature seems to support this view, the position is so complicated and so full of obscurities that I think it ought to be elucidated by the International Commission on Zoological Nomenclature in order to remove any future doubt. This is the more necessary because *Ctenophthalmus*, as customarily used, is the largest genus of the Siphonaptera (containing about 170 species and subspecies, or about 10 per cent. of the entire Order) and has five subgenera (excluding *Ctenophthalmus s. str.*) the names of all of which are compounded with that of the genus. It is also the type-genus of the subfamily Ctenophthalminae Rothschild, 1915 (*Ent. mon. Mag.* **51** : 77). Any change in the universally-accepted application of this generic name would be most disastrous to students of this Order.

10. Moreover, one of the best-known specific names in the genus is also in danger, for if, as I think probable, *Ctenophthalmus musculi* Kolenati, 1856,

is to be regarded as an independent new name instead of a misapplication of *Pulex musculi* Bouché, 1835 (see para. 2) it is not a homonym of the latter name and is the most senior name for the species concerned. Thus strict application of Article 23 of the International Code of Zoological Nomenclature would, in the absence of action under section (b) of the article, result in the displacement of a name which has been in undisputed use since 1863 by one which has not been used by any author since it was published in 1856.

11. The position is not much better with regard to the identity of the species to which the name *Ctenophthalmus bisoctodentatus* Kolenati, 1863 should apply, for though his description and figure show beyond reasonable doubt that the species belongs to *Ctenophthalmus* as currently understood, neither is adequate to identify the species. Kolenati's type-material is lost* but his host-record is *Talpa europaea*, on which only two species of the genus occur regularly in Central Europe (Kolenati mentioned no locality for the nominal species but he collected mainly in what is now Czechoslovakia). Wagner (1901, *Hor. Soc. ent. ross.* **35** : 24, pl. 1, fig. 2) described the commoner of these two species on moles as *Typhlopsylla bisoctodentata* Kol. and figured it perfectly recognisably, though the subspecies is not that which Kolenati is likely to have had. There is no reason whatever against accepting Wagner's identification of Kolenati's nominal species, as all siphonapterologists have done, but it rests on no firm basis in the absence of a type ; moreover there are two subspecies of *Ctenophthalmus bisoctodentatus* Kolenati (as thus identified by Wagner) and it is impossible without a type to establish which is the nominate subspecies. Wagner's drawing shows the western subspecies but Kolenati (who mentioned no locality) collected mainly in what in now Czechoslovakia and is more likely to have had the eastern subspecies, which has been accepted as the nominate one. I therefore propose as neotype of *Ctenophthalmus bisoctodentatus* Kolenati, 1863 the female specimen of which the most diagnostic portion is depicted in Plate 4. This specimen is in the collection of the British Museum (Natural History) and is labelled " *Ctenophthalmus bisoctodentatus* Kolenati, 1863. Neotype ♀. Prague, Czechoslovakia. 13.iv.1910. *Talpa europaea*. V. Fric. C. Rothschild coll. Brit. Mus. 1923.615 ".

12. Three further specific names published by Kolenati ought to be dealt with at the same time as *Ctenophthalmus bisoctodentatus* Kolenati, 1863 because the nominal species to which they refer are all unidentifiable and the names have all at one time or another been placed, directly or indirectly, as synonyms of this name. They are as follows :—

(a) *Ctenophthalmus unidentatus* Kolenati, 1859, *Jh. k. k. mähr. schl. Ges. Ackerbau, Natur- und Landeskunde* 1858:65. Kolenati (1863, *Hor. Soc. ent.*

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* Kolenati never made types, in the modern meaning of the term, but in 1863 he listed the collections in which his " Typen " (presumably merely typical specimens) were to be found in each instance. All his " Typen " of species dealt with in this application should be in " der Originalsammlung des Verfassers " (now in the Museum National d'Histoire Naturelle at Paris) and in the collection of Dr. H. Loew (now in the Zoologisches Museum der Humboldt Universität in Berlin), but the fleas in these museums were listed in 1911 by Rothschild (1911, *Ann. Sci. nat.* (*Zool.*) **12** : 203–216) and Jordan & Rothschild (1911, *Novit. zool.* **18** : 57–89) respectively ; none of Kolenati's specimens of species still referred to the genus *Ctenophthalmus* survives in either museum.

ross. **2** : 36) placed this name as a synonym of *C. bisseptemdentatus* Kolenati, 1863. Oudemans (1913, *Tijdschr. Ent.* **56** : 276) accepted Kolenati's synonymy and used the name *Spalacopsylla unidentatus* Klti. for a well-known species of *Ctenophthalmus* other than *bisoctodentatus.* Jordan & Rothschild (1920, *Ectoparasites* **1** : 62) suggested doubtfully that the name might refer to a species of *Palaeopsylla* Wagner, 1903 (Official List of Generic Names in Zoology, No. 897), and no subsequent author has been able to suggest to what flea the name might apply ; Hopkins (1950, *Entomologist* **83** : 163) expressed the opinion that this nominal species is hopelessly unrecognisable. The " Typen " are lost, but the specific name *bisseptemdentatus* (see para. 12(b)) has been applied to *bisoctodentatus*, of which *unidentatus* is therefore potentially a senior synonym. It has not been used since 1913.

(b) *Ctenophthalmus bisseptemdentatus* Kolenati, 1863, *Hor. Soc. ent. ross.* **2** : 36, pl. 2, fig. 7. This nominal species is described (: 36) as having three spines in the genal comb but figured as having four, while *C. unidentatus* Kolenati, 1859 (discussed in the preceding subparagraph and placed by Kolenati in his paper of 1863 as a synonym of *C. bisseptemdentatus*) was originally stated to have only one such spine. Kolenati's drawing suggests a member of the genus *Ctenophthalmus* as currently understood but is in no way indicative of any particular species. Rothschild (1901, *Ent. Rec.* **13** : 362) applied the name " *Typhlopsylla bisseptemdentata*, Kol. (*cf.* Wagner, *Hor. Soc. Ent. Ross.*, t. xxv. p. 24, 1900) " to a species of *Ctenophthalmus* which he had obtained in England, but this was a slip because the name mentioned by Wagner on the page quoted is not *T. bisseptemdentata* (not mentioned at all in Wagner's paper) but *T. bisoctodentata*, and reference to Rothschild's collection shows that at least most of the specimens referred to in his note do indeed belong to the western subspecies of *Ctenophthalmus bisoctodentatus* Kolenati. Jordan & Rothschild (1920, *Ectoparasites* **1** : 62) considered the nominal species *bisseptemdentatus* to be unrecognisable and no subsequent author has used the name, which has therefore been out of use for over 60 years. It is of the same date as *bisoctodentatus* but the latter has page-precedence.

(c) *Ctenophthalmus bisbidentatus* Kolenati, 1859, *Jh. k. k. mähr. schl. Ges. Ackerbau, Natur- und Landeskunde* 1858 : 65. Kolenati stated in his original description that this species has four spines in the genal comb, but in 1863 (*Hor. Soc. ent. ross.* **2** : 35) he placed it as a synonym of *Ctenophthalmus bisoctodentatus*, which has three. Oudemans (1913, *Tijdschr. Ent.* **56** : 260) accepted Kolenati's most improbable synonymy and used " *Spalacopsylla bisbidentatus* Klti." for the species that others called *Ctenophthalmus bisoctodentatus* Kolenati ; in 1914 (*Ent. Ber., Amst.* **4** : 136) he mentioned " *Spalacopsylla* Oudemans, 1906 met (*talpae* Bouché, 1835 non Curtis, 1826=) *bisbidentatus* Kolenati 1859 als genotype ", but the last occasion on which the specific name *bisbidentatus* was used as a valid name was in the following year, when Heselhaus (1915, *Tijdschr. Ent.* **58** : 272) used it in Oudemans' sense. Jordan & Rothschild (1920, *Ectoparasites* **1** : 61) thought the name might refer to a *Palaeopsylla*, while Hopkins (1950, *Entomologist* **83** : 163) stated his intention of placing it in the synonymy of *Leptopsylla segnis* (Schönherr, 1811). If the synonymy given by Kolenati in 1863 were correct the name *bisbidentatus* would be a senior synonym of *C. bisoctodentatus* Kolenati, 1863.

13. In order to preserve universally-accepted usage and avoid the confusion that any alteration of this usage would entail, I ask the International Commission on Zoological Nomenclature to take the following action :—

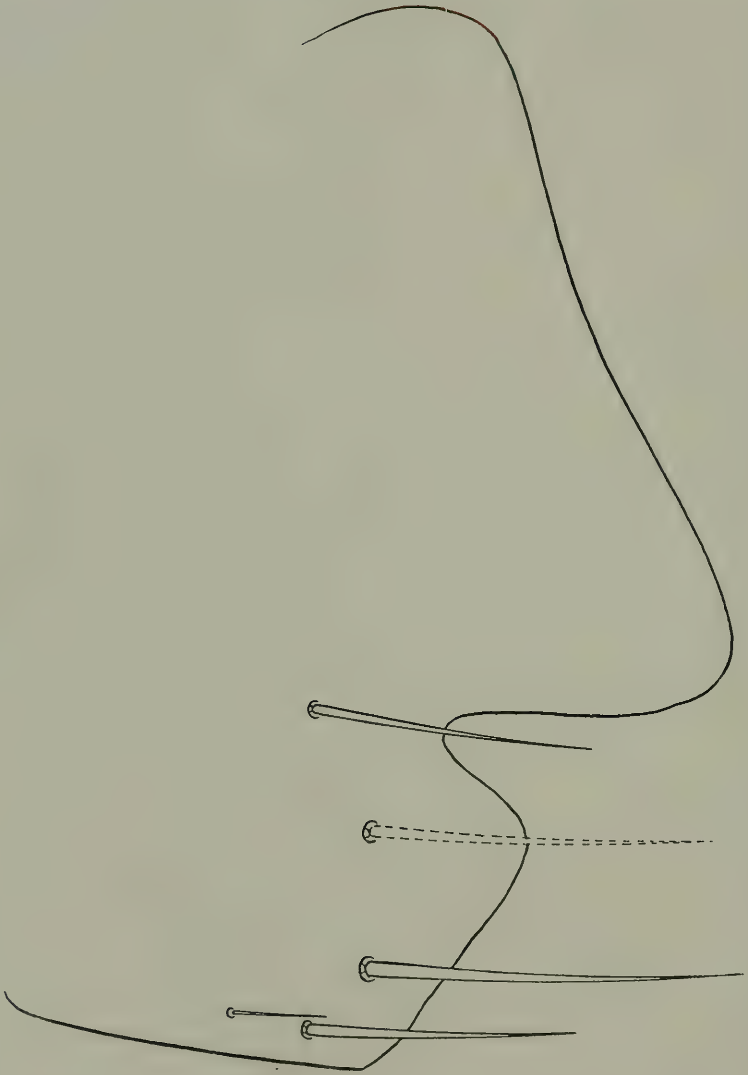
(1) to use its plenary powers :

- (a) to set aside all designations of a type-species for the genus *Ctenophthalmus* Kolenati, 1856 made prior to the decision now proposed ;
- (b) to designate *Ctenophthalmus bisoctodentatus* Kolenati, 1863 to be the type-species of *Ctenophthalmus* Kolenati, 1856 ;
- (c) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy :
  - (i) the specific name *musculi* Kolenati, 1856, as published in the binomen *Ctenophthalmus musculi* (1856, *Parasiten der Chiroptern*, Brünn edition : 33) (a *nomen oblitum* of doubtful significance which is perhaps a senior synonym of *Ctenophthalmus bisoctodentatus* Kolenati, 1863) ;
  - (ii) the specific name *talpae* Kolenati, 1856, as published in the binomen *Ctenophthalmus talpae* (1856, *Parasiten der Chiroptern*, Brünn edition : 33) (a *nomen oblitum* which is probably a junior synonym of *Leptopsylla segnis* (Schönnherr, 1811), but which has been much confused with *Ctenophthalmus bisoctodentatus* Kolenati, 1863) ;
  - (iii) the specific name *unidentatus* Kolenati, 1859, as published in the binomen *Ctenophthalmus unidentatus* (*Jh. k. k. mähr. schl. Ges. Ackerbau, Natur- und Landeskunde* 1858: 65) (a *nomen oblitum* belonging to a nominal species which is unidentifiable, but which is potentially a senior synonym of *Ctenophthalmus bisoctodentatus* Kolenati, 1863) ;
  - (iv) the specific name *bisseptemdentatus* Kolenati, 1863, as published in the binomen *Ctenophthalmus bisseptemdentatus* (*Hor. Soc. ent. ross.* **2** : 36), an unidentifiable *nomen oblitum* which has (though only by *lapsus calami*) been applied to *Ctenophthalmus bisoctodentatus* Kolenati, 1863 ;
  - (v) the specific name *bisbidentatus* Kolenati, 1859, as published in the binomen *Ctenophthalmus bisbidentatus* (*Jh. k. k. mähr. schl. Ges. Ackerbau, Natur- und Landeskunde* 1858 : 65) (unidentifiable, not used since 1914, but a senior synonym of *Ctenophthalmus bisoctodentatus* Kolenati, 1863, if the synonymy given by Kolenati in 1863 be accepted) ;

(2) to place on the Official List of Generic Names in Zoology the following name :

Ctenophthalmus Kolenati, 1856 (gender of generic name masculine) (type-species, by designation under the plenary powers : *Ctenophthalmus bisoctodentatus* Kolenati, 1863 (Insecta : Siphonaptera) ;

BRITISH MUSEUM NATURAL HISTORY



(3) to place on the Official List of Specific Names in Zoology the following name:
   bisoctodentatus Kolenati, 1863, *Hor. Soc. ent. ross.* **2** : 35, pl. 2, fig. 6, as interpreted by the neotype designated in para. 11 of this application;

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
   (a) *Spalacopsylla* Oudemans, 1906 (*Tijdschr. Ent.* **49** : lxiii), a junior objective synonym of *Typhlopsylla* Taschenberg, 1880, and a junior subjective synonym of *Ischnopsyllus* Westwood, 1833, but not used in this sense since it was published;
   (b) *Spalacopsylla* Oudemans, 1908, a disused junior objective synonym of *Ctenophthalmus* Kolenati, 1856 and a junior homonym of *Spalacopsylla* Oudemans, 1906;

(5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the specific names proposed to be suppressed in para. 13(1)(c) of this application;

(6) to place on the Official List of Family-Group Names in Zoology the following name:
   CTENOPHTHALMINAE Rothschild, 1915 (*Ent. mon. Mag.* **51** : 77) (type-genus *Ctenophthalmus* Kolenati, 1856).

Explanation of Plate 4

Outline of the seventh sternite of female neotype of *Ctenophthalmus bisoctodentatus* Kolenati, 1863

VANIKORO QUOY & GAIMARD: COMMENT ON DR. ROBERTSON'S APPLICATION. Z.N.(S.) 1524

(see volume 19, pages 332–336)

By C. W. Wright (*London*)

Dr. Robertson makes two comments about the Rules, which are of some general significance.

In para. 9 (: 334) he states that Article 29b does not explain in the present case whether Gray or H. & A. Adams is to be considered the zoologist who first published a family-name based on *Vanikoro* Quoy & Gaimard. Gray's *Vanicoro* however is an unjustified emendation in the sense of Article 33a(ii) and is thus " a junior objective synonym of the name in its original form " and has status in nomenclature as from Gray, 1840. Gray's VANICOROIDAE therefore is not to be treated as a family-group name based on *Vanikoro* but as one based on a different, if synonymous, name. Consequently H. & A. Adams, in publishing VANIKORIDAE, first determined the stem of *Vanikoro*.

In a footnote to para. 11(2) of his application, Dr. Robertson argues that the gender of *Vanikoro* is feminine, although the original authors neither expressed nor implied that it was, on the ground that " every malacologist but Poirier . . . appears subsequently to have considered it feminine." This practice of malacologists cannot be regarded as overruling Article 30b(ii). If Dr. Robertson wishes to maintain the femininity of *Vanikoro* he should ask the Commission to use its plenary powers to set aside the effect of applying the Rules, but it would surely be a misuse of these powers to employ them for this trivial purpose.

CERATOMYA SANDBERGER, 1864 (MOLLUSCA, BIVALVIA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS AND ADDITION OF *CERATOMYA* AND *CERATOMYOPSIS* COSSMANN, 1915, TO THE OFFICIAL LIST. Z.N.(S.) 1526

By L. R. Cox (*British Museum* (*Natural History*), *London*)

The main object of this application is to obtain sanction for the adoption of the generic name *Ceratomya* Sandberger, 1864 (Mollusca ; Bivalvia) and to establish its use in the sense in which it is customarily employed ; a subordinate application is to obtain sanction for the adoption of the generic name *Ceratomyopsis* Cossmann, 1915, in similar circumstances.

2. The generic name *Ceromya* was proposed by L. Agassiz in 1842 (*Études critiques sur les mollusques fossiles. Monographie des Myes* : 25), six nominal species being included in it but no type-species being designated. These six species included *Isocardia excentrica* Roemer (*ex* Voltz MS.) and *Isocardia tenera* J. Sowerby. The name *Ceromya* Agassiz was invalid as it was a homonym of *Ceromya* Robineau-Desvoidy, 1830, a generic name for Diptera still in use by entomologists.

3. Herrmannsen (1846, *Indicis generum Malacozoorum* **1** : 213) cited *Isocardia tenera* Sowerby as type-species of *Ceromya* Agassiz, and no earlier type-designation has been discovered.

4. F. Sandberger (1864, *Würzburg. naturw. Z.*, **5** : 16) published a list of species in which a new generic name *Ceratomya* appeared, without explanation, in combination with two specific names, the binomina being given as " *Ceratomya plicata* Ag." and " *Ceratomya tenera* Sow. sp.". These were two of the six species which Agassiz had included in *Ceromya*, *C. plicata* having been described by him as new. It is thus clear that the name *Ceratomya* was introduced by Sandberger to replace *Ceromya* Agassiz, and it is most probable that it was intended as an emendation rather than as a new name proposed because of homonymy. By the new International Code the name *Ceratomya* would appear to be (*a*) an " unjustified emendation " possessing " status in nomenclature with its own date and author ", but at the same time " a junior objective synonym of the name in its original form " (Article 33(a)(ii)), hence taking the same type-species as *Ceromya* Agassiz and not necessarily one of the two nominal species listed by Sandberger ; (*b*) an available name as complying with the requirement of " citation, in combination with a new genus-group name, of one or more available specific names ".

5. The next type-designation for *Ceromya* Agassiz (ignoring those designating species not cited by Agassiz) was that of Stoliczka (1871, *Cretaceous fauna of southern India.* III. *Pelecypoda* : xvi), who misspelt the generic name " *Ceromia* " and cited " *C. excentrica* Ag." as type.

6. P. Fischer (1887, *Manuel de Conchyliologie* : 1164) erected a family Ceromyidae based on *Ceromya* Agassiz and remarked " le vocable *Ceromya* est mal formé et devrait s'écrire *Ceratomya* ".

7. Cox (1928, *Quart. J. geol. Soc.* **84** : 244) pointed out that *Ceromya* Agassiz was a homonym and (not at that date having come across Sandberger's 1864 list) proposed to replace it by *Ceratomya* Fischer and designated " *Isocardia excentrica* (Voltz) Roemer " as type-species thereof.

8. Arkell (1934, *British Corallian Lamellibranchia* (*Mon. palaeont. Soc.*) : 315) accepted *Ceratomya* Fischer as a generic name replacing *Ceromya* Agassiz and changed the family name to Ceratomyidae.

9. Notwithstanding its designation as type-species of *Ceromya* Agassiz by Herrmannsen in 1846, no subsequent author has included *Isocardia tenera* Sowerby in *Ceromya* or *Ceratomya*, and it is now referred to the genus *Anisocardia* Munier-Chalmas, 1863 (type-species, by monotypy, *A. elegans* Munier-Chalmas), which is at present included in the Arcticidae [Cyprinidae] and has never been placed in the Ceromyidae or Ceratomyidae.

10. The generic name *Ceromya* or *Ceratomya*, on the other hand, is now universally applied to the taxonomic group typified by the species *Isocardia excentrica* Roemer.

11. No name except *Ceratomya* is at present available as a replacement name for *Ceromya* Agassiz.

12. P. de Loriol (1897, *Mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura bernois* (*Mém. Soc. pal. suisse*, **24**) : 79) erected a new genus *Ceromyopsis* for a group of Mollusca (Bivalvia) similar to *Ceromya* Agassiz. Its type-species was subsequently designated as *Ceromyopsis helvetica* de Loriol by Rollier (1913, *Fossiles nouveaux ou peu connus* (*Mém. Soc. pal. suisse* **39**): 269). Unfortunately it was a homonym of *Ceromyopsis* Meek, 1872, also a genus of Bivalvia. Cossmann (1915, *Bull. Soc. nivern. Lett. Sci.* (3) **15** : 7) emended *Ceromyopsis* de Loriol to *Ceratomyopsis* on etymological grounds. This was an unjustified emendation, but it is proposed to regard *Ceratomyopsis* as a valid generic name available as a replacement name for *Ceromyopsis* de Loriol and having as its type-species *Ceromyopsis helvetica* de Loriol in accordance with the designation by Rollier cited above. This course has already been adopted by L. Van de Poel (1960, *Mém. Inst. géol. Univ. Louvain* **21** : 231).

13. The Commission is therefore asked :

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Ceratomya* Sandberger, 1864, made prior to the Ruling now requested and, having done so, to designate *Isocardia excentrica* Roemer, 1836, to be the type-species of that genus ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :

  (a) *Ceratomya* Sandberger, 1864 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Isocardia excentrica* Roemer, 1836, with priority from 1842 ;

  (b) *Ceratomyopsis* Cossmann, 1915 (gender : feminine), type-species, by designation by Rollier, 1913, through *Ceromyopsis* de Loriol, 1897, *Ceromyopsis helvetica* de Loriol, 1897 ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :

(a) *excentrica* Roemer, 1836 (*Versteinerungen des norddeutschen Oolithen-Gebirges* : 106), as published in the binomen *Isocardia excentrica* (type-species of *Ceratomya* Sandberger, 1864) ;
(b) *helvetica* de Loriol, 1897 (*Mollusques et brachiopodes de l'Oxfordien supérieur et moyen du Jura bernois* (*Mém. Soc. pal. suisse* **24**): 79), as published in the binomen *Ceromyopsis helveticus* [sic] (type-species of *Ceratomyopsis* Cossmann, 1913) ;

(4) to place the family-group name CERATOMYIDAE Arkell, 1934 (type-genus *Ceratomya* Sandberger, 1864) on the Official List of Family-Group Names in Zoology with priority from 1887 ;

(5) to place the family-group name CEROMYIDAE Fischer, 1887 (type-genus *Ceromya* Agassiz, 1842) (invalid because the name of its type-genus is a junior homonym) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

XILOCOPA LATREILLE, 1802 (INSECTA, HYMENOPTERA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS.

Z.N.(S.) 1527

By Paul D. Hurd, Jr. (*University of California, Berkeley, U.S.A.*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to reject the generic name *Xilocopa* Latreille, 1802 (Class Insecta, Order Hymenoptera) in favour of the emended generic name *Xylocopa* Latreille, [1802–3], so as to maintain harmony with accustomed usage.

2. *Xilocopa* Latreille, 1802 (*Hist. natur. des Fourmis* : 432) was emended to *Xylocopa* by Latreille, [1802–1803] (*Hist. nat. gén. partic. Crust. Ins.* **3** : 379) and was consistently so used in his subsequent works (e.g., Latreille, 1810, *Consid. gén. Anim. Crust. Arachn. Ins.*). Although a few authors also employed the original orthography (*Xilocopa*) in their publications, the last adoption of that orthography was by Spinola, 1806 (*Insectorum Liguriae* **1** : 128) until it was adopted by Sandhouse, 1943 (*Proc. U.S. Nat. Mus.* **92** : 608). Otherwise *Xilocopa* has remained unused in the primary zoological literature even though it has been cited, but not adopted, by Dalla Torre, 1896 (*Catalogus hymenopterorum* **10** : 202), Michener, 1944 (*Bull. Amer. Mus. nat. Hist.* **82** : 289), and Michener *in* Muesebeck, Krombein & Townes, 1951 (*U.S. Dept. Agric. Monograph* no. 2 : 1245).

3. This is another instance of an unused senior synonym (original orthographic form), in which the strict application of the Rules would not only cause needless confusion in the nomenclature of this genus, but would also run directly counter to the intentions of Latreille and the objectives of the International Code of Zoological Nomenclature.

4. The type-species of *Xylocopa* has generally been considered to be *Apis violacea* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 578), by designation by Latreille, 1810 (op. cit. : 439). This designation, however, is invalid since Latreille cited two nominal species in conjunction with *Xylocopa*. The same species, *Apis violacea*, was cited by Westwood, 1840 (*Introd. mod. Classif. Ins.*, Gen. Synopsis : 86) as the type of *Xylocopa*, and this is the earliest designation known for the genus.

5. The earliest proposed family-group name as far as I know is that provided by Lepeletier, 1841 (*Histoire naturelle des insectes. Hyménoptères.* Suites à Buffon, Paris, Roret, **2** : 147). His proposal in the vernacular (Article 36 of the new Code), is " 3^{e} Tribu. Les Xylocopites " and is accompanied by a 15 line exposé of characters. According to Essig, 1942 (*College Entomology* : 710) the family is " Xylocopidae (Lepeletier, 1841) Shuckard, 1859 ".

6. The International Commission is therefore asked :

(1) to use its plenary powers to suppress the generic name *Xilocopa* Latreille, 1802, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Xylocopa* Latreille, [1802–1803] (gender: feminine), type-species, by designation by Westwood, 1840, *Apis violacea* Linnaeus, 1758, on the Official List of Generic Names in Zoology;

(3) to place the specific name *violacea* Linnaeus, 1758, as published in the binomen *Apis violacea* (type-species of *Xylocopa* Latreille, [1802–1803]) on the Official List of Specific Names in Zoology;

(4) to place the generic name *Xilocopa* Latreille, 1802, as suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Generic Names in Zoology:

(5) to place the family-group name XYLOCOPIDAE (correction of "Les Xylocopites") Lepeletier, 1841 (type-genus *Xylocopa* Latreille, [1802–1803]) on the Official List of Family-Group Names in Zoology.

ABLABES CHINENSIS GÜNTHER, 1889 (REPTILIA, SERPENTES): PROPOSED VALIDATION UNDER THE PLENARY POWERS.

Z.N.(S.) 1532

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

As demonstrated by Guibé and Roux-Estève (*Herpetologica*, 1962, in press), the long-enigmatic *Henicognathus sumichrasti* Bocourt, 1886 (*Mission scientifique au Mexique*, livr. 10, 1886, pp. 628–630, pl. 41, fig. 5), supposedly from Mexico and accepted although with reservations in the endemic American genus *Scaphiodontophis* by Smith and Taylor (*Univ. Kans. Sci. Bull.* **29** : 1943, 320) and by Leviton and Munsterman (*Occ. Pap. Nat. Hist. Mus. Stanford Univ.*, no. 4, 1956 : 6), is in reality an Asiatic snake, *Sibynophis chinensis chinensis* (Günther, 1889), bearing incorrect locality data.

2. Since Bocourt's name has three years priority over Günther's name, by automatic provisions of the 1961 Code *Sibynophis sumichrasti* becomes the valid name for the species known for over 70 years as *Sibynophis chinensis*. Since the latter name has been universally accepted for its species since its proposal; since its replacement *sumichrasti* lacks acceptable locality data; and since the name *sumichrasti*, if accepted, would be used in two confusingly different senses; it is clear that the automatic provisions of the Code in application to this case would be distinctly contrary to the intent of the Code in providing for stability of nomenclature.

3. Accordingly, the Commission is hereby requested:

(1) to use its plenary powers to suppress the specific name *sumichrasti* Bocourt, 1886, as published in the binomen *Henicognathus sumichrasti*, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the specific name suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology;

(3) to place the specific name *chinensis* Günther, 1889, (*Ann. Mag. nat. Hist.* (6) **4** : 220), as published in the binomen *Ablabes chinensis*, holotype Brit. Mus. nat. Hist. No. 83.1.30.36, on the Official List of Specific Names in Zoology.

DRYADOPHIS STUART, 1939 (REPTILIA, SERPENTES) : PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1533

By Hobart Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

1. In 1939 Stuart (*Copeia* **1939**(1) : 55) proposed the name *Dryadophis* as a substitute for *Eudryas* Fitzinger, 1843, preoccupied by *Eudryas* Boisuval, 1836 (Lepidoptera). Since then the name *Dryadophis* has consistently been used for the genus of snakes to which belongs its type and the type of *Eudryas* Fitzinger, namely *Coluber boddaerti* Sentzen, 1796 = *Dryadophis b. boddaerti* (Sentzen), by monotypy. The works using the name include a monograph of the entire genus (Stuart, 1941, *Misc. Publ. Mus. Zool. Univ. Michigan*, no. 49) and a number of regional checklists or monographs, as of Mexico and Costa Rica.

2. However, as pointed out by Dunn (*Caldasia* **3**, 1944 : 204), *Dryadophis* is antedated by *Mastigodryas* Amaral (*Mem. Inst. Butantan* **8**, 1934 : 157–158), type by monotypy *M. danieli* Amaral (*op. cit.* : 158), a synonym of *Coluber boddaerti* Sentzen. Another specific name *M. unicolor*, was used in the summary of the paper (p. 159), but is apparently a *lapsus* for *danieli*, perhaps being an earlier-selected manuscript name for the species. The name *unicolor* has no nomenclatural status and therefore *Mastigodryas* remains monotypic. Amaral's names *Mastigodryas* and *danieli* have not been used, as valid names, since their proposal, so far as I am aware.

3. Since *Dryadophis* has enjoyed universal acceptance since the date of its proposal, and since that acceptance includes several works of broad, essentially monographic scope as well as numerous less authoritative usages, it would be distinctly in the interest of nomenclatural stability to preserve *Dryadophis* in lieu of the senior name *Mastigodryas* which by automatic provisions of the Code would be the proper name for the genus now known as *Dryadophis*.

4. Accordingly the Commission is here requested.

(1) to use its plenary powers to suppress the generic name *Mastigodryas* Amaral, 1934, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(2) to place the generic name suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Generic Names in Zoology ;

(3) to place the generic name *Dryadophis* Stuart, 1939 (gender : feminine), type-species, by monotypy, *Coluber boddaerti* Sentzen, 1796, on the Official List of Generic Names in Zoology ;

(4) to place the specific name *boddaerti* Sentzen, 1796, (in Meyer, *Zool. Archiv.* (2) : 59), as published in the binomen *Coluber boddaerti* (type-species of *Dryadophis* Stuart, 1939) on the Official List of Specific Names in Zoology.

Bull. zool. Nomencl., Vol. 20, Part 3. April 1963.

COLUBER SUBOCULARIS BROWN, 1901 (REPTILIA, SERPENTES): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1534

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

Following the then-accepted practice of regarding secondary homonyms as unavailable, Smith in 1941 proposed the new name *Elaphe sclerotica* (*Copeia* **1941** : 135–136) as a substitute for *Coluber subocularis* Brown, 1901 (=*Elaphe subocularis* as of 1917 *et seq.*), a secondary homonym of *Bascanion suboculare* Cope, 1866 (=*Coryphodon mentovarius* Duméril, Bibron and Duméril, 1854, placed in the past fifty years by some in *Coluber* and by others in *Masticophis*, but first referred to *Coluber* by Garman, 1883, *Mem. Mus. comp. Zool.*, Harvard **8** : 42, 147). In the interest of nomenclatural stability such a name would not now be changed, and the change would not be countenanced by the 1961 Code. Nevertheless the 1961 Code makes it clearly implicit (Art. 59) that any secondary homonym rejected and replaced before 1961 on grounds of secondary homonymy can never be revived, with the understood exception of those names preserved by the plenary powers of the Commission. Accordingly, by the automatic provisions of the 1961 Code, *sclerotica* is the proper name for the species previously known usually as *subocularis*.

2. Since 1941, however, *subocularis* has continued in almost universal usage; only two references to the species employ the name *sclerotica*. Prior to that time there had been no deviation in usage of *subocularis*. Furthermore, there is no likelihood that *Coluber subocularis* of Brown would under any circumstance ever be confused with *Bascanion suboculare* of Cope, since they have always, even by the most extreme lumpers, been regarded as representing different genera. It is, therefore, clearly in the interest of stability of nomenclature that *Coluber subocularis* Brown be preserved in its present sense.

3. Accordingly it is here requested that the Commission:

(1) declare under the plenary powers that the specific name *subocularis* Brown, 1901, as published in the binomen *Coluber subocularis*, shall not be invalidated by its senior secondary homonym *Bascanion suboculare* Cope, 1866;

(2) to place the specific name *subocularis* Brown, 1901, (*Proc. Acad. nat. Sci. Philad.* **1901** : 492) as published in the binomen *Coluber subocularis*, holotype Acad. Nat. Sci. Philadelphia No. 13733, on the Official List of Specific Names in Zoology;

(3) to place the specific name *sclerotica* Smith, 1941, as published in the binomen *Elaphe sclerotica* (a junior objective synonym of *subocularis*, *Coluber*, Brown, 1901) on the Official Index of Rejected and Invalid Specific Names in Zoology.

SPILOTES MELANURUS DUMÉRIL, BIBRON & DUMÉRIL, 1854 (REPTILIA, SERPENTES): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1535

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

In 1941 Smith (*Journ. Washington Acad. Sci.* **31** : 473–474) proposed the name *Drymarchon corais melanocercus* as a substitute for *Spilotes melanurus* Duméril, Bibron and Duméril, 1854 (*Erp. Gén.* **7** : 224–225), a secondary homonym of *Coluber melanurus* Schlegel, 1837 (=*Elaphe melanurus* [Schlegel]) by virtue of the inclusion of both names in *Spilotes* by Gray (*Cat. Snakes Brit. Mus.*, 1858 : 97). This proposal was made in conformance with the then accepted understanding that secondary homonyms, like primary homonyms, are automatically dead upon occurrence.

2. Subsequent discussions, as in the Paris meetings of the International Congress of Zoology (*Bull. zool. Nomencl.* **4**, 1948 : 123–124), made it apparent that such a rigid interpretation of homonyms was not widely acceptable. Accordingly the name *melanurus* continued in popular use after 1943 as it had prior to 1941, even by the original author of the substitute name.

3. In the 1961 Code it is implicitly clear (Art. 59c) that names rejected as secondary homonyms prior to 1961 are to remain permanently rejected. By the automatic provisions of the Code, therefore, *melanocercus* Smith is the valid name for the form commonly referred to as *melanurus*.

4. There seems, however, to be nothing in favour in this case of insistence upon adherence to the automatic provisions and utilization of the name *melanocercus* in lieu of *melanurus*, except for the maintenance of inflexibility of application of the Code, and avoidance of disturbing the Commission for preservation of a name not particularly important in non-taxonomic literature. These considerations do not, I think, outweigh the desirability of the century-long continuity of name for a very widely distributed snake which is indeed a popular exhibit animal and is thus frequently referred to in the popular and semipopular literature. Some forty references in the taxonomic literature have occurred since 1854 in application to Mexico alone ; surely a greater number have occurred in application to the subspecies in other parts of its range, in Central and South America. The deliberately-chosen similarity of the substitute and original names does not materially alter the conclusion that it would be in the best interest of nomenclatural stability to preserve the long-used name *melanurus*.

5. Accordingly the Commission is hereby requested :

(1) to declare under the plenary powers that the specific name *melanurus* Duméril, Bibron & Duméril, 1854, as published in the binomen *Spilotes melanurus*, is not invalidated by its Senior secondary homonym *Coluber melanurus* Schlegel, 1837 ;

(2) to place the specific name *melanurus* Duméril, Bibron & Duméril, 1854,

as published in the binomen *Spilotes melanurus*, syntypes Mus. Hist. Nat. Paris 638, 3185, 3354, and U.S. Nat. Mus. 1416, lectotype by present designation U.S. Nat. Mus. 1416, on the Official List of Specific Names in Zoology ;

(3) to place the specific name *melanocercus* Smith, 1941, as published in the combination *Drymarchon corais melanocercus* (a junior objective synonym of *melanurus*, *Spilotes*, Duméril, Bibron & Duméril, 1854) on the Official Index of Rejected and Invalid Specific Names in Zoology.

RYGCHIUM SPINOLA, 1806 (HYMENOPTERA, EUMENIDAE); PROPOSED VALIDATION OF EMENDATION TO *RHYNCHIUM*. Z.N.(S.) 1540

By J. van der Vecht (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The generic name *Rygchium* Spinola, 1806, often written " *Rhynchium* ", has been applied for a long time to a rather heterogeneous assemblage of solitary diplopterous wasps. In recent years the generic distinctions in this group have been considerably clarified, and the name is now restricted by European authors to a well-defined group of species occurring throughout the tropics and subtropics of the old world; the type-species is *Rygchium europaeum* Spinola, 1806, a junior synonym of *Vespa oculata* Fabricius, 1781. Up to the present the name *Rygchium* has also been used for a group of nearctic EUMENIDAE (see Bohart, 1951, *in* Muesebeck c.s., *Cat. Hym. Am. N. of Mex.* : 887–892, and Krombein, 1958, *Suppl. Cat. Hym. Am. N. of Mex.* **1** : 163–164), but these species are rather different from the old world *Rygchium* and in a recent discussion with Dr. R. M. Bohart, the leading authority on this subject, we came to the conclusion that they appear to be more closely related to *Euodynerus* Dalla Torre. It is to be expected, therefore, that the generic name of the nearctic species, hitherto regarded as *Rygchium*, will have to be replaced anyhow, so that the present proposal will not affect the nomenclature of the new world wasps.

There has been considerable diversity in the spelling of the name of this genus. Already in 1820, Billberg (*Enum. Ins.* : 109) emended the original spelling, writing : " *Rhynchium* Eg.=*Rychium* [!] Spnl.".

Some years later, Sturm (1829, *Verz. Ins. Nuernberg* : 12) wrote " *Rynchium* ", but Lepeletier (1841, *Hist. Nat. Ins. Hym.* **2** : 679) used the original spelling. Agassiz (*Nomencl. Zool.*, 1846, Index Univ. : 326), apparently unaware of Billberg's work, listed " *Rhynchium* " as an emendation by himself. De Saussure (1852, *Et. Fam. Vesp.* **1** : 101) initially used the original spelling, but in 1853 he wrote " *Rhygchium* " in the introductory part (p. xxxi) as well as in the index (p. 276) of this volume; finally in the supplement to this work (1855, *Et. Fam. Vesp.* **3** : 170) he used the emended spelling " *Rhynchium* " without any comments and even wrote " Genre *Rhynchium* de la Monographie " (l.c. : 175) when referring to the first volume.

The emended spelling has been rather generally accepted; it is used in the catalogues of Dalla Torre (1894, *Cat. Hym.* **9** ; 1904, *Gen. Insect.* **19**) and in the majority of the publications of European authors, including various more or less recent papers by Von Schulthess, Guiglia, Giordani Soika, and others. The Spanish authors Dusmet (1903, *Mem. Soc. Esp. Hist. Nat.* **2** : 153, 157, 165; 1909, *Mem. Primer Congr. Nat. Esp. Zaragoza* : 164) and Giner Mari (1945, *Himenopt. Espana*, Vespidae, etc. : 37, 48, 141) write " *Rhygchium* "; they were followed in this practice by Hirashima and Yano (1958, *Kontyu* **26** : 167), but the usual spelling in Japanese literature is " *Rhynchium* ".

It cannot be said that the original spelling was unknown to the authors who used the emendation. Gribodo (1892, *Bull. Soc. Ent. Ital.* **23** (1891) : 276) rejected the emended spelling in favour of " *Rygchium* " ; nevertheless this same author accepted the emended spelling *Rhynchium* in a work published a few years later (1895, *Mem. R. Ac. Sc. Bologna* (5) **5** (341) : 95). Berland (1928, *Faune de France* **19**, *Hym. Vespiformes* **2** : 16) wrote : " L'orthographie originale de ce nom est *Rygchium*, mais par raison d'euphonie on écrit le plus souvent *Rhynchium* ".

The authors using the original spelling (Bequaert, Dover, van der Vecht) in studies on the old world fauna are much less numerous than those who accepted the emendation. Yet this would hardly be a good reason to reject the original spelling which is the correct one according to the International Code of Zoological Nomenclature. In my opinion a much stronger argument is provided by the fact that there exist a number of compound names, based on the emended spelling (*Pararrhynchium* Saussure, 1855, *Prorhynchium* Saussure, 1855, *Anterhynchium* Saussure, 1863), whereas so far no names have been derived from the original spelling. Evidently the creation of names based on the spelling " *Rygchium* " would add considerably to the existing confusion and instability. Rejection of the original spelling and official acceptance of the emended name is therefore regarded as a step which is fully in accordance with the last paragraph of the preamble of the International Code of Zoological Nomenclature.

It should be noted that as far as I know the genus *Rhynchium* is not the type of a currently accepted taxon of the family-group.

The proposal now submitted for consideration is that the International Commission on Zoological Nomenclature should :

(1) make use of its plenary powers to validate the emendation *Rhynchium* for the generic name originally published as *Rygchium* Spinola in 1806 ;

(2) place on the Official List of Generic Names in Zoology the name *Rhynchium* (emendation under the Plenary Powers in (1) above of *Rygchium*) Spinola, 1806, *Ins. Ligur.* **1** : 84 (gender : neuter), type-species by monotypy : *Rhynchium europaeum* Spinola, 1806, [a subjective synonym of *Vespa oculata* Fabricius, 1781 (*Spec. Insect.* **1** : 463)=*Rhynchium oculatum* (Fabricius, 1781)] ;

(3) place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology :—

  (a) *Rygchium* Spinola, 1806, *Ins. Ligur.* **1** : 84 (an incorrect original spelling of *Rhynchium* Spinola, 1806, as emended under the plenary powers in (1) above) ;

  (b) *Rychium* Billberg, 1820, *Enum. Ins.* : 109 (an erroneous spelling of *Rygchium* Spinola, 1806) ;

  (c) *Rynchium* Sturm, 1829, *Verz. Ins. Nuernberg* : 12 (an invalid emendation of *Rygchium* Spinola, 1806) ;

  (d) *Rhygchium* Saussure, 1853, *Et. Fam. Vesp.* **1** : xxxi, 276 (an emendation or erroneous spelling of *Rygchium* Spinola, 1806) ;

(4) place on the Official List of Specific Names in Zoology the name *oculata* Fabricius, 1781, as published in the binomen *Vespa oculata* [subjective senior synonym of *Rhynchium europaeum* Spinola, 1806].

EULACHNUS DEL GUERCIO, 1909 (INSECTA, HEMIPTERA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1541

By V. F. Eastop (*British Museum* (*Natural History*), *London*)

This application concerns a supposedly wrongly identified type-species.

2. Kaltenbach 1843 (*Mon. Phytophthires*: 161–162) described *Lachnus agilis* as a new species.

3. Del Guercio 1909 (*Redia* **5** : 315) erected *Eulachnus* as a new genus for four previously described and five new species. Del Guercio did not designate a type for *Eulachnus* but the first species mentioned in both the key (*Redia* **5** : 315–316) and the descriptions (pp. 317–321) is referred to as *Eulachnus agilis* (Kaltenbach) Del Guercio and *Lachnus agilis* Kltb. is given as a synonym. Del Guercio defined *Eulachnus* in such a way as to exclude the species to which all other authors have applied the name *agilis* Kltb. and described his *agilis* in detail (pp. 317–321 and figs. 222–227), making it certain that he did not have *Lachnus agilis* Kaltenbach.

4. Wilson 1911 (*Ann. ent. Soc. Amer.* **4** : 54) said " . . . *Eulachnus* Del Guercio (loc. cit.) the type of which probably should be *E. agilis* (Kalt.) " but later on the same page tabulated *agilis* as the type of *Eulachnus* without any query. Most later authors have used *Eulachnus* with the genuine *Lachnus agilis* Kaltenbach as type.

5. Theobald 1915 (*Bull. ent. Res.* **6** : 145) erected *Protolachnus* as a new genus for the single new species, *Protolachnus tuberculostemmata*.

6. Baker 1920 (*Bull. U.S. Nat. Mus.* **826** : 15) accepted Wilson's type citation reluctantly saying, " Wilson has indicated *agilis* Kalt. as the type. Apparently, therefore, the genus must be based on that species." Baker placed *Protolachnus* Theobald, 1915, as a synonym of *Eulachnus* Del Guercio, 1909, and all later authors have placed *agilis* and *tuberculostemmata* together in the same genus, regardless of which generic name they used. Baker 1920 (*ibid.* **826** : 15) also erected a sub-tribe EULACHNINA based on *Eulachnus*.

6. Börner 1939 (*Arb. phys. angew. Ent.* **6** : 75) used *Cinara* Curtis 1835 for more or less the same group of species for which Del Guercio established *Eulachnus* and in 1940 (*Neue Blattlause aus Mitteleuropa*, privately published, p. 1) used *Eulachnus* for the true *Lachnus agilis* Kltb.

7. Hille Ris Lambers 1948 (*Trans. R. ent. Soc. Lond.* **99** : 275) proposed *Cinarella* (type-species *Lachnus pineus* Mordwilko, 1894/5, *Rab. Lab. zool. Kab., Varshava* **1894** : 126–130) as a new name for *Cinara* Curtis of Börner 1939 nec Curtis 1835. The Commission has already decided in favour of Hille Ris Lambers' interpretation of *Cinara* Curtis. (1956, Opinion 399, type-species *Aphis pini* L., 1758.)

8. Börner 1952 (*Mitt. Thuring. Bot. Ges.* **4** : 40) used *Protolachnus* Theobald, 1915, to replace what he called *Eulachnus* Wilson not Del Guercio, saying that Del Guercio had misinterpreted *Lachnus agilis*. Börner selected another species originally included in *Eulachnus* by Del Guercio, *Eulachnus mingazzinii* Del

Guercio, as type of *Eulachnus*. This makes *Eulachnus* a synonym of *Cinara* in the sense of Börner which has been renamed *Cinarella* Hille Ris Lambers, 1948. If this type selection is accepted *Cinarella* H.R.L., 1948 would become a synonym of *Eulachnus* Del Guercio, 1909. Although this is the sense in which Del Guercio used *Eulachnus* this type citation is undesirable because it would cause confusion, as all later authors accepting *Eulachnus* as a valid name have used it for a different generic concept. Börner 1952 (*ibid.* **4** : 39) used a tribe PROTOLACHNINI, which he attributed to Baker in parentheses, apparently to indicate that it is a replacement name for EULACHNINA Baker.

9. In the interests of nomenclatural stability it is desirable either, (1) to accept *Lachnus agilis* Kltb. as the type of *Eulachnus* in accordance with the most frequent usage, or, (2) to suppress *Eulachnus* in which case *Protolachnus* is available for this generic concept. It is thought that least confusion will arise if *Eulachnus* is suppressed and the International Commission on Zoological Nomenclature is therefore asked :—

(1) to use its plenary powers to suppress the generic name *Eulachnus* Del Guercio, 1909, for the purposes of the Law of Priority but not for those of the Law of Homonymy, in the interests of stability and uniformity of nomenclature in the APHIDIDAE ;

(2) to place the following generic names on the Official List of Generic Names in Zoology :—
   - (a) *Protolachnus* Theobald, 1915 (gender : masculine), type-species, by monotypy, *Protolachnus tuberculostemmata* Theobald, 1915 ;
   - (b) *Cinarella* Hille Ris Lambers, 1948 (gender : feminine), type-species, by original designation, *Lachnus pineus* Mordwilko, 1894-95.

(3) to place the following specific names on the Official List of Specific Names in Zoology :
   - (a) *tuberculostemmata* Theobald, 1915, as published in the binomen *Protolachnus tuberculostemmata* (type-species of *Protolachnus* Theobald, 1915) ;
   - (b) *pineus* Mordwilko, 1894/5, as published in the binomen *Lachnus pineus* (type-species of *Cinarella* Hille Ris Lambers, 1948).

(4) to place the following generic name on the Official Index of Rejected and Invalid Names in Zoology :

Eulachnus Del Guercio, 1909, (as suppressed under the plenary powers in (1) above).

THE REGULATION IN ACCORDANCE WITH CURRENT USAGE OF FIVE PROPOSALS OF THE SPECIFIC NAME *MACULATA* BY ANCIENT AUTHORS FOR USE IN THE ORDER HYMENOPTERA. Z.N.(S.) 1544

By J. G. Betrem (*State College for Tropical Agriculture, Deventer, The Netherlands*)

The purpose of this application is to provide for the retention of the name *maculata* Linnaeus in the genus *Vespula*, *maculata* Fabricius in the genus *Ceropales*, and the rejection of *maculata* Drury as published in the genera *Vespa* and *Sphex* and of *maculata* Scopoli as published in the genus *Vespa*. All of these names have entered into either primary or secondary homonymy.

2. Drury (*Illustr. Nat. Hist.*, 1773) described a *Vespa maculata* on p. 74 and a *Sphex maculata* on p. 77. Both belong to the family SCOLIIDAE (Hymenoptera) and were included by Dalla Torre (1893, *Cat. Hym.* **8** : 168 and 158) both in the genus *Scolia*. These names are therefore secondary homonyms. Dalla Torre listed *Sphex maculata* as a doubtful synonym of *Scolia flavifrons* Fabricius, 1775. According to Micha (*Mitt. Zool. Mus. Berlin*, 1927, **13** : 125) *Sphex maculata* Drury, 1773, is a senior subjective synonym of *Scolia haemorrhoidalis* Fabricius, 1787. She stated that *Vespa maculata* Drury and *Sphex maculata* Drury are not secondary homonyms, because the former belongs to the genus that she terms *Dielis* (now *Campsomeris*) while the latter belongs to the genus *Scolia*. Micha was incorrect in restoring the validity of both names *Vespa maculata* and *Sphex maculata*, cf. Code, art. 59 (b, c).

3. Bradley (*Eos*, 13 : 1928) pointed out that since *Vespa maculata* has page priority over *Sphex maculata*, the latter specific name cannot be used, since both species have been formerly in the genus *Scolia*. The valid name, he said, for *Sphex maculata* Drury must be *Scolia haemorrhoidalis* Fabricius, 1787. Bradley was wrong in advancing page precedence as a compulsory reason for adopting *Vespa maculata* as a senior homonym and *Sphex maculata* as a junior homonym, cf. Code, art. 24a. But under Art. 24a of the Code it was necessary for the first reviser to decide which use of *maculata* by Drury should be retained and which rejected. Micha, the actual first reviser, contributed nothing to the question because she invalidly attempted to restore both names as potentially usable. While Bradley was not, as he then believed, compelled to retain *Vespa maculata*, he was at liberty to do so, and in doing so thereby became the first effective reviser *.

4. It is highly undesirable that the name *maculata* Drury should replace the name *haemorrhoidalis* Fabricius, 1787, because the latter name has been in continuous use ever since Fabricius published it. It is a common species in a part of southern Europe. The rejection of this almost continuously used name would not be in accordance with the principle of stability and universality of nomenclature. It is therefore desirable that the name *maculata* Drury, 1773, as published in the combination *Sphex maculata*, be rejected as

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*The question of the first reviser has also been discussed by Dr. J. D. Guiglia and Dr. J. G. Betrem, *Annali di Mus. civ. d. stor. nat. Genova*, 1958, **70** : 93.

being a junior secondary homonym of *Vespa maculata* Drury and that it be placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

5 There exists still another secondary homonym of *Sphex maculata* Drury, 1773. Fabricius (1775, *Syst Ent* : 345, no 2) described *Evania maculata* as a new species. This species is now called *Ceropales maculata* (Fabricius, 1775). This insect was transferred to the genus *Sphex* by Villers (*Car. Linn. Ent.*, 1789, **3** : 226) who in this respect was followed by Gmelin (*Linn. Syst. Nat.* (ed. 13) 1790, **1**(5) : 2723, n. 13) and by Christ (1791, *Naturg. d. Ins.* : 274). It is very likely that it was this homonymy that caused Christ (l.c., p. 253) to alter the name of Drury's *Sphex maculata* to *Sphex goliath*. No one later seems to have noticed this homonymy until Guiglia and Betrem discussed it in the paper noted above.

6. If the view is accepted that Christ was aware of this homonymy, the name, *maculata* Fabricius, 1775, as proposed in the combination *Evania maculata* Fabricius, 1775, now *Ceropales maculata*, because it is a secondary homonym of *Sphex maculata* Drury, 1773 (=*Scolia haemorrhoidalis* Fabricius, 1787) must be rejected. This also would not be in accordance with the principle of stability and universality, because this name has been used ever since its publication for the common European wasp that has been known for more than a century and a half as *Ceropales maculata* (Fabricius, 1775). It is therefore desirable that the name *maculata* Drury, 1773, as published in the combination *Sphex maculata* be placed on the Official Index of Rejected and Invalid Specific Names in Zoology. At the same time *maculata* Fabricius, 1775, as published in the combination *Evania maculata*, should be placed on the Official List of Specific Names in Zoology.

7. The name *maculata* Drury, 1773, as published in the combination *Vespa maculata* (the Scoliid) is a junior primary homonym of *Vespa maculata* Linnaeus, 1763 (*Cent. Insect. rar.* : 30, n. 91) (a true Vespid) and of *Vespa maculata* Scopoli, 1763 (*Ent. Carn.* : 312, n. 831). Therefore Cockerell (*Entomologist*, 1917, **40** : 50) proposed the new name *druryi* for the Scoliid wasp to replace the name *maculata* Drury, published as *Vespa maculata*.

8 Fabricius (1775, *Syst. Ent.* : 355, n.2) described *Scolia 4-maculata*. He cited *Sphex maculata* Drury probably as a synonym ; it appears from his reference to plate 89, fig. 2 that he intended *Vespa maculata* Drury. It is however not quite clear whether he proposed 4-*maculata* as a substitute name for it, or as a name for a new species based, not upon Drury's type, but upon material that is still in the Fabrician collection formerly in Kiel. It is therefore desirable that the Commission should rule that *Scolia quadrimaculata* Fabricius, 1775, be deemed a new name, proposed to replace *Vespa maculata* Drury, 1773.

9. It is not known which is the prior of the two names, *maculata* Linnaeus, 1763, or *maculata* Scopoli, 1763. *Vespa maculata* Linnaeus is a well-known North American *Vespula* and is the type-species of the subgenus *Dolichovespula* Rohwer. *Vespa maculata* Scopoli is a form that still is not recognized with certainty. Smith (*Cat. Hym. Brit. Mus.*, 1857, **3** : 114, n. 2) treated it as a doubtful synonym of *Vespa germanica* Fabricius, 1783. Dalla Torre (*Cat. Hymen*, 1893, **9** : 146) followed him. If this synonymy should be accepted in the future, and if it should be ruled that *Vespa maculata* Linnaeus is a junior

homonym of *Vespa maculata* Scopoli, then this common European species that has been known under the name *germanica* for more than a century would receive the name *maculata* Scopoli, and the abundant North American species that has been known for almost two centuries as *maculata* Linnaeus, would also have to be known under a different name. These changes would also not be in accordance with the principle of stability and universality of nomenclature; therefore it is desirable that the Commission should rule that *Vespa maculata* Linnaeus, 1763, has priority over *Vespa maculata* Scopoli, 1763, and that they should place the former name on the Official List of Specific Names in Zoology and the latter on the Official Index of Rejected and Invalid Specific Names in Zoology.

ACTION RECOMMENDED

10. The Commission is requested:

(1) to rule that *Vespa maculata* Drury, 1773 (*Illustr. Nat. Hist.*: 74) has priority over *Sphex maculata* Drury, 1773 (loc. cit.: 77) having regard to the fact that they at one time became secondary homonyms in the genus *Scolia*;

(2) to rule that *Scolia quadrimaculata* Fabricius, 1775, is deemed to be a new name, proposed to replace *Vespa maculata* Drury, 1773, and hence to be based on the same type-specimen, despite any discrepancy in the accompanying description;

(3) to rule that *Vespa maculata* Linnaeus, 1763 (*Centur. Insect rar.*: 30, n. 91) has priority over *Vespa maculata* Scopoli, 1763 (*Entom. Carn.*: 312, n. 831);

(4) to place the following names on the Official List of Specific Names in Zoology:
  (a) *maculata* Linnaeus, 1763, as published in the combination *Vespa maculata* (now *Vespula* (*Dolichovespula*) *maculata* (L.));
  (b) *maculata* Fabricius, 1775, as published in the combination *Evania maculata* (now *Ceropales maculata* (F.));
  (c) *quadrimaculata* Fabricius, 1775, as published in the combination *Scolia quadrimaculata*;
  (d) *haemorrhoidalis* F., 1787, as published in the combination *Scolia haemorhoidalis*;

(5) to place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology:
  (a) *maculata* Drury, 1773, as published in the combination *Vespa maculata*, a primary homonym of *Vespa maculata* Linnaeus, 1763);
  (b) *maculata* Drury, 1773, as published in the combination *Sphex maculata*;
  (c) *maculata* Scop., 1763, as published in the combination *Vespa maculata*.

PURCHASED

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Margaret Spillane, B.Sc., *Scientific Assistant*

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BRITISH MUSEUM NATURAL HISTORY

9 AUG 1963

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 20, Part 4 (pp. 241–320) 12*th July*, 1963

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Suppression of *Atherina japonica* Houttuyn, 1782 (Pisces). Z.N.(S.) 569.
(2) Suppression of *Melissodes fonscolombei* Romand, 1841 (Insecta, Hymenoptera). Z.N.(S.) 862.
(3) Validation of *Tanagra* Linnaeus, 1766, *Tanagra episcopus* Linnaeus, 1766, and designation of a type-species for TANAGRIDAE Bonaparte, 1838 ; or validation of *Thraupis* Boie, 1826 and *Tanagra episcopus* Linnaeus, 1758 (Aves). Z.N.(S.) 1182.
(4) Designation of a type-species for *Leptrota* Melichar, 1912 (Insecta, Hemiptera). Z.N.(S.) 1530.
(5) Validation of *Tipula paludosa* Meigen, 1830 (Insecta, Diptera). Z.N.(S.) 896.
(6) Validation of *Boriomyia* Banks, 1905 (Insecta, Neuroptera). Z.N.(S.) 1531.
(7) Suppression of *Conus clavus*, *Conus minimus*, *Conus rusticus* and *Conus senator*, all of Linnaeus, 1758 (Gastropoda). Z.N.(S.) 1558.
(8) Designation of a type-species for *Calephelis* Grote & Robinson, 1869 (Insecta, Lepidoptera). Z.N.(S.) 1563.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
1 *May* 1963.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

COMMENTS ON THE PROPOSED SUPPRESSION OF *ZORILLA* I. GEOFFROY, 1826. (Z.N.(S.) 758)

(see volume 19, pages 284-289)

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

Though I am not a mammalogist the case of *Zorilla vs. Ictonyx* interests me very much and I venture therefore to give some comments. In my opinion the arguments used by both parties in this case involve various points which are not pertinent here and only confuse the issue.

(1) When describing his new genus *Zorilla*, I. Geoffroy St. Hilaire referred to only one nominal species: " *Mustela zorilla* et *Viverra zorilla* des auteurs systématiques ". This species is *Viverra zorilla* Gmelin, 1788, Linnaeus Syst. Nat. (ed. 13) **1** : 88. *Mustela zorilla* Cuvier (1798, Tabl. élém. Hist. nat. Anim. : 116) is not a new name but just a new combination of Gmelin's name as is clear from Cuvier's reference to " *Viverra zorilla* L.". The type-species of the genus *Zorilla* I. Geoffroy, 1826, consequently is *Viverra zorilla* Gmelin, 1788. Gmelin gives as the locality of his species " America australi " and refers to various previous authors (Schreber, Buffon, and Gumilla). It seems to me that what should be done is to select a lectotype for Gmelin's species from among the specimens discussed by the authors to which he refers. Only if this is done and the identity of Gmelin's species is established and thereby also that of Geoffroy's genus *Zorilla*, have discussions on the status of the latter any sense. I would suggest therefore that the mammologists concerned first decide about the identity of Gmelin's species, at least if no lectotype for that has already been selected, which, judging by the text of the application, is not the case.

(2) As *Mustela zorilla* as used by Cuvier (1798) is not a new name but nothing but *Viverra zorilla* Gmelin transferred to the genus *Mustela*, it is incorrect to have the name *zorilla* Cuvier, 1798 suppressed under the plenary powers, as no such name exists.

(3) A third problem which I should like to comment upon is the status of E. Geoffroy's (1803) ' Catalogue des Mammifères du Muséum National d'Histoire Naturelle ', which according to Dr. Morrison-Scott is not published. After examination of the copy of this publication in the Leiden Museum and after consulting the Code and especially Art. 8, I cannot see why this book should be considered as not published. It is reproduced in ink on paper by regular printing, it is issued for the purpose of scientific, public, and permanent record, and it was distributed free. In our copy the following citation is written on the fly leaf : " Le catalogue des Mammifères du Muséum national d'histoire naturelle, rédigé par Etienne Geoffroy Saint-Hilaire, imprimé en 1803 n'a jamais été mis en vente ; mais il a été distribué, tant á l'etranger qu'en France, à un assez grand nombre de zoologistes, et il est cité dans tous les traités de mammalogie. Cf. Catalogue méthodique de la collection des Mammifères de la collection des oiseaux et des collections annexes par M. Isidore G. St. Hilaire et M. M. Florent Prévost et Pucheran Paris 1851. Introduction V, et note 2." As the book has been printed, properly distributed and cited in all or practically all important mammological treatises, as is confirmed by our Curator of Mammals, Mr. A. M. Husson, I do not see any reason why this book should be unavailable nomenclatorially or even why it should be suppressed. Mr. Husson believes that a suppression of this work will cause an undesirably great number of changes in currently adopted names in mammology.

By W. E. China (*Acting Secretary, International Commission on Zoological Nomenclature*)

In deference to Dr. Holthuis's criticisms of this case and after consultation with Dr. Morrison-Scott, it has been decided to delete the following from page 289 :

(1) " *zorilla* Cuvier, 1798, as published in the binomen *Mustela zorilla* ; " from paragraph 11(1)(b) ;
(2) Paragraph 11(5)(b) ;
(3) Paragraph 11(6).

By Philip Hershkovitz (*Chicago Natural History Museum*)

The genus *Zorilla* I. Geoffroy is based on a single species. Its author explicitly says so in the original description (see Addendum below). That species is the African polecat or stinkmuishond. I. Geoffroy makes that explicit. No other species is mentioned in the original description of the genus, no other has been added since, and no other can be named type of the genus.

Article 68c states " a genus [*Zorilla*] originally established with a single nominal species takes that species [African polecat] as its type regardless of whether the author [I. Geoffroy] considered the genus to contain other species that he did not name and regardless of cited synonyms [i.e., *le zorille* Buffon], subspecies, unavailable names [*le zorille* Buffon] and species that are doubtfully included or identified (type by monotypy) ".

The Code further states in Article 68d, " if a newly established nominal genus [*Zorilla*] contains among its originally included nominal species one possessing the generic name as its specific or subspecific name [*Mustela zorilla* of authors] whether as a valid name or as cited synonym, that nominal species is *ipso facto* the type-species (type by absolute tautonymy) ".

Thus, *Mustela zorilla*, as understood by I. Geoffroy, by all French authors of the time and by me as reviser is type of *Zorilla* by monotypy and tautonymy. This species, as I have shown, is *Mustela zorilla* G. Cuvier, 1798, based primarily on the *putois du Cap*. This species is neither a synonym nor a homonym of *Viverra zorilla* Gmelin (Schreber) based solely on the *zorille* of Buffon which is regarded by some modern authors as either a *Spilogale* or as an unidentifiable mustelid.

The *zorille* of Buffon enters into consideration because of the ambiguity in the original designation of the type-species (see Addendum below). The status of the *zorille* with the genus *Zorilla* is that of a subjective synonym of *Mustela zorilla*. Its identification as such is I. Geoffroy's irrespective of the probability, or fact, that this concept of the species may differ from that of Buffon and later revisers. The Code resolves problems of this sort in Article 69a(i) in the event the type-species had not been fixed in the original publication, as follows :—

" 'The originally included species ' comprises only those actually cited by name in the newly established nominal genus, either as valid names (including subspecies, varieties, and forms), as synonyms, or as stated misidentifications of previously established species [Art. 70b]."

The cited Article 70b states :

" If the type designated for a new nominal genus is a previously established species, but the designator states that he employs its specific name in accordance with the wrong usage of a previous author, *the type-species is to be interpreted as the one actually before the designator*, not the one that correctly bears the name."

The italics in the last quotation are mine. The only species before the designator [or author] was the African polecat. We know this to be true. The evidence for this is contained in the original description of *Zorilla* which is a taxonomic review of the only species of African polecats known to science at that time.

The name *Zorilla* I. Geoffroy, 1826, was consistently used for African polecats until its authorship was transferred to Oken, 1816, by overzealous adherents of the Law of Priority. As an Oken name, *Zorilla* was rejected in 1906 by A. H. Howell who replaced it with *Ictonyx* Kaup, 1835, instead of the valid and still available *Zorilla* I. Geoffroy. Nevertheless, the name *Zorilla* I. Geoffroy continued to be used and is recognized in many recent works (e.g., Grassé, 1955, Traité de Zoologie, **17** (1) : 240).

Modern authors, namely, Ellerman and Morrison-Scott, with a predilection for *Ictonyx* Kaup, would make it appear that *Zorilla* I. Geoffroy is the name for a genus of North American spotted skunks, presently *Spilogale* Gray ! The nomenclatorial legerdemain is accomplished by assuming that the genus *Zorilla* is typified by *Viverra zorilla* Gmelin. The type of this species is Buffon's *zorille* identified by these authors as a *Spilogale*. This concept of the species, based on a purely subjective synonym of *Mustela zorilla*, is not included in the original definition of the genus *Zorilla* I. Geoffroy, 1826. Hence the *zorille* of Buffon or binomials based solely on it cannot be designated type-species (cf. Art. 67 h). The *Zorilla* of Ellerman and Morrison-Scott and China with type, le *zorille* of Buffon is, therefore, a junior homonym of *Zorilla* I. Geoffroy as well as a synonym of *Spilogale* Gray. As such, *Zorilla* Ellerman and Morrison-Scott and China (not I. Geoffroy) is stillborn and requires no action for suppression by the International Commission on Zoological Nomenclature. On the other hand, the original *Zorilla* I. Geoffroy, 1826, with the tautonymous monotype, *Mustela zorilla* G. Cuvier, remains the earliest name for the African polecat (*Ictonyx* Kaup, a synonym).

In consideration of the above, the International Commission on Zoological Nomenclature is respectifully requested to act upon the following counter proposal to action requested by Dr. W. E. China (in application Z.N.(S.) 758).

1. To place the generic name *Zorilla* I. Geoffroy, 1826, with type-species, *Mustela zorilla* G. Cuvier, 1798, on the Official List of Generic Names in Zoology. (*Ictonyx* Kaup, 1835, is an available junior synonym).

2. To place the specific name, *Mustela zorilla* G. Cuvier, 1798, with type, the *putois du Cap* of authors, on the Official List of Specific Names in Zoology. (*Ictonyx capensis* Kaup, 1835, is an available objective junior synonym.)

ADDENDA

The description of *Zorilla* I. Geoffroy, from the original publication, is as follows :

" Les ZORILLES, *Zorilla*. Ils ont avec le système dentaire des Putois, des ongles longs, robustes et assez semblables à ceux des Mouffettes, auxquelles ils ressemblent aussi par leur système de coloration. Par suite de cette modification ils ne peuvent plus grimper sur les arbres comme le font les autres Martes ; mais ils peuvent fouir avec beaucoup de facilité et se creusent des terriers, comme les Mouffettes. *On n'a encore distingué dans ce sous-genre qu'une seule espèce.*

" Le ZORILLE, Buff. T. XIII, pl. 41 ; *Mustela Zorilla* et *Viverra Zorilla* des auteurs systématiques, a plus d'un pied du bout du museau à l'origine de la queue ; celle-ci a huit pouces environ. Il est généralement noir avec plusieurs taches blanches sur la tête, et plusieurs lignes longitudinales de même couleur à la partie supérieure du corps. *Ces bandes et ces taches ont assez constamment la meme disposition*, mais leur étendue proportionnelle vaire beaucoup. *Cette espèce n'habite pas seulement les environs du cap de Bonne-Espérance ; mais elle existe aussi au Sénégal, et sur les bords de la Gambie, où elle a été trouvée par le malheureux voyageur Bodwich* [sic.]. *Le Zorille du Sénégal et de la Gambie diffère d'ailleurs de celui de Cap* à quelques égards ; ainsi on retrouve bien chez l'un et chez l'autre les mêmes taches et les mêmes lignes ; mais chez le premier, les parties blanches ont beaucoup plus d'étendue que les noires, en sorte que le pelage est presque antièrement blanc sur le dessus et les côtés du corps, tandis que la disposition inverse s'observe dans la variété du Cap. Nous ne pensons pas néanmoins qu'on doive considérer ces deux animaux comme des espèces distinctes ; car l'étendue proportionnelle des taches blanches varie même tellement entre les individus d'un même pays, qu'il est assez difficile d'en trouver deux exactement semblables." (I. Geoffroy, 1826, *Dictionnaire Classique d'Histoire Naturelle* **10** : 209, 215–216.)

By E. Raymond (*University of Kansas, Lawrence, Kansas, U.S.A.*)

It seems to me that (1) *Zorilla zorilla* (G. Cuvier, 1798) is the correct name of the South African striped mustelid, (2) *Spilogale putorius* (Linnaeus, 1758) is the correct name of the North American spotted skunk, and (3) E. Geoffroy's 1803 Catalogue was published and there is no need to place it on any Official List.

Given reasonable rules and the facts of a case, taxonomists and nomenclaturalists, it seems to me, ought to be permitted to do their own thinking. Also, so doing is thought to be the shortest road to stability of nomenclature. Consequently let us not attempt to place names applied to the two species on " Official Lists " and let us not attempt to apply Article 23b.

By Jean Dorst (*Museum National d'Histoire Naturelle, Paris, France*)

Je viens de recevoir du Dr. Hershkovitz un double du dossier qu'il vous transmet quant à la position de la commission sur le nom générique *Zorilla* I. Geoffroy. Je n'ai rien à ajouter aux commentaires très détaillés qu'il vous a fait à ce sujet et notamment sur la position de la commission quant au catalogue d'Etienne Geoffroy Saint Hilaire.

Je partage entièrement son opinion et l'appuie vigoureusement. Je considère que sa position est juste quant à la prise en considération du travail de Geoffroy sur lequel aucun doute ne peut subsister. Il serait regrettable que l'on adopte une telle position car cella mettrait à nouveau en question la stabilité de la nomenclature générique d'un assez grand nombre de formes de Mammifères. Or nous devons conserver au maximum les noms génériques reconnus.

COMMENTS ON THE PETITION CONCERNING PENAEID NAMES Z.N.(S.) 962

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

(See volume 19, pages 103–114 ; volume 20, pages 169–174)

Dr. Martin D. Burkenroad kindly sent me a copy of his comments on my proposal on certain generic names of Penaeid Crustacea (1962, *Bull. zool. Nomencl.* **19**(2) : 103–114). Dr. Burkenroad's remarks make it clear that in my proposal there are some deficiencies ; these I should like to correct in the present note, while I should like also to give my views on the other points raised by Dr. Burkenroad. These various points are treated here in the same order as they are dealt with in Dr. Burkenroad's comments.

1. My arguments for the retention of the ae instead of the e in the various names derived from *Penaeus* are given in my proposal to which I have nothing to add.

2. As none of Tilesius's names have ever been adopted and as the poor quality of his descriptions and figures in those cases that we can judge, makes an identification of his species impossible, it seems best, in my opinion, to suppress the entire publication, rather than run the risk that someone might later re-introduce names proposed therein.

3a. Dr. Burkenroad's findings make it clear that the type-specimen of *Penaeus affinis* H. Milne-Edwards actually belongs to the species to which most authors gave the name *Metapenaeus* or *Penaeopsis affinis*, while the specimen considered by Dr. Hall (1961) to be the type of H. Milne-Edwards's species evidently does not belong to the type lot. This shows that there is no need at all for the use of the plenary powers of the Commission to designate a type-species for the genus *Metapenaeus*, since its true type, *Penaeus affinis*, at present is currently treated as belonging to that genus.

b. Dr. Burkenroad's intention to split the genus *Metapenaeus* in two subgenera, the non-typical of which will contain the type of the genus *Mangalura*, shows that my request for the suppression of *Mangalura* was unwise. In order to save both *Metapenaeus* and *Mangalura*, the two should be placed on the Official List, but in order to safeguard the continued use of *Metapenaeus*, the Commission is now asked to give, under its plenary powers, *Metapenaeus* priority over *Mangalura*.

c. The position of the specific name *kerathurus* Forskål, 1775, relative to those of *trisulcatus* Leach, 1814, and *caramonte* Risso, 1816, as discussed by Dr. Burkenroad, needs some comments. In a bibliography of Decapoda Macrura, which I have been compiling for about twenty years now, I have counted the number of authors using the three names in different periods. I came to the following results :

For *caramote*, *trisulcatus*, and *kerathurus* the number of authors are respectively for the period starting with 1775 : 85, 32, and 13 ; for the period starting with 1900 : 50, 23, and 11 ; for the period starting with 1930 : 17, 19, and 11 ; for the period starting with 1940 : 7, 13, and 11 ; and for the period starting with 1950 : 1, 7, and 11. This shows that *caramote* around 1947 was not entirely forgotten (the three figures for the literature after 1947 are 5, 9, and 11), but that it indeed became rapidly obsolete, while at present the name *kerathurus* gradually has taken over. There seems no need for the Commission to take any steps here.

d. As to the question of *Penaeus monodon* Fabr., in my 1949 paper I have given my reasons for considering this species to be correctly identified with what several authors named *Penaeus carinatus* Dana (Holthuis, 1949, *Proc. Kon. Nederl. Akad. Wetensch.* 52(9) : 1051–1057), and also gave my arguments for definitely linking the name *monodon* to that species by a neotype selection. I still believe that these actions are in the interest of nomenclatural stability. My 1949 (:1056) selection of a specimen from the Bay of Batavia (=Bay of Djakarta, W. Java, Indonesia), collected in June 1924 by P. Buitendijk and now preserved in the Rijksmuseum van Natuurlijke Historie at Leiden under Reg.No.Crust.D.5734, is considered invalid by Dr. Burkenroad on account of Article 75(c)(5) of the Code. The type-locality given in the original description by Fabricius (1798, Suppl. Ent. Syst. : 408) is " in Oceano Indico ", which means in Fabricius's terminology " in the seas of the Indies ", Just as his " in Oceano Norwegico ", " in Oceano Asiatico ", and " in Oceano Europaeo " mean respectively in Norwegian, Asiatic and European seas. His " India " not only included former British India, but also the former Netherlands East Indies. This is shown, e.g., in his text concerning *Inachus longipes* (L.) on pp. 358–359 of his book, where under this Rumphian species, which at that time was only known from Amboina, Moluccas, the indication " Habitat in Oceano Indico " is likewise given. As far as I can see my neotype selection fulfils all necessary requirements and has to be considered valid.

5a. As to the name *miersi* Holthuis, 1952, as published in the combination *Penaeopsis miersi*, I still am convinced that when proposing this new name I had no other alternative. The species name *Penaeopsis pubescens* (Bouvier, 1905) for it was preoccupied by *Penaeopsis pubescens* (Stimpson, 1871), while no other name was available. Even if Bouvier's and Stimpson's species ultimately will prove to belong to different genera, the name *pubescens* Bouvier, cannot be resurrected any more as it was rejected as a secondary homonym before 1961 and thus under Article 59(c) of the Code cannot be used again.

b. I cannot interpret Bate's (1888 : 320) passage cited by Dr. Burkenroad as anything but an unambiguous (though not necessarily valid) type designation.

c. Since Bate (1881, *Ann. Mag. nat. Hist.* (5) **8** : 183) in the original description of " Penaeopsis serratus, A. Milne-Edwards, MS." does not make it clear that the description of this species was furnished by A. Milne-Edwards (it seems more than likely that it is given entirely in Bate's own words), the species should not be cited as *Penaeopsis serratus* A. Milne-Edwards in Bate, but just as *Penaeopsis serratus* Bate (cf. Art. 51(c) of the Code). As to the validity of the names *Penaeus serratus* Bate, 1881, and *Penaeopsis serratus* Bate, 1881, it is my opinion that De Man (1911) indeed has to be considered the first reviser and that his action of proposing a replacement name for *Penaeus serratus* Bate, is perfectly valid, even if he did so on incorrect premises.

Concluding I may remark that Dr. Burkenroad's comments have necessitated me to change my stand concerning the points discussed in paras. 3a and 3b above. Therefore I request the Commission with regard to the proposals which I submitted on pp. 111–114 of my 1962 (*Bull. zool. Nomencl.* **19**(2)) application :

(i) to delete the following paragraphs : (1)(b), (1)(c), (1)(d), (2)(b), (3)(c), and (5)(h) ;

(ii) to change the numbers of para. (1)(e) to (1)(b), and those of para. (5)(i)–(5)(r) to (5)(h)–(5)(q) respectively ; and

(iii) to add the following new paragraphs :

(1)(c) to direct that the generic name *Metapenaeus* Wood-Mason, 1891, be protected from the generic name *Mangalura* Miers, 1878, in such a way that authors synonymizing the two should give *Metapenaeus* priority over *Mangalura* ;

(2)(b) the name *Metapenaeus* (masculine) Wood-Mason, 1891, in Wood-Mason and Alcock, *Ann. Mag. nat. Hist.* (6) **8** : 271 (type-species, by original designation : *Penaeus affinis* H. Milne-Edwards (1837, *Hist. nat. Crust.* **2**: 416) (a generic name to be given precedence under the plenary powers under (1)(c) above, over the generic name *Mangalura* Miers, 1878) ;

(2)(c) the name *Mangalura* (feminine) Miers, 1878, *Proc zool. Soc. London* **1878** : 303 (type-species, by monotypy : *Penaeus dobsoni* Miers, 1878, *Proc. zool. Soc. London* **1878** : 302) (a generic name to be rejected, under the plenary powers under (1)(c) above, in favour of the generic name *Metapenaeus* Wood-Mason, 1891, by authors who consider the two synonymous) ;

(3)(c) the name *affinis* H. Milne-Edwards, 1837, as published in the combination *Penaeus affinis* (name of the type-species of the genus *Metapenaeus* Wood-Mason, 1891) ;

(3)(d) the name *dobsoni* Miers, 1878, as published in the combination *Penaeus dobsoni* (name of the type-species of the genus *Mangalura* Miers, 1878).

By M. D. Burkenroad (*Museo Nacional de Panamá*)

Plenary action to give *Metapeneus* priority over *Mangalura* (Dr. Holthuis's amended proposals, 1c, 2b and 2c) would be preferable to outright suppression of the latter ; but still seems unjustified. The principle upon which this renewed defence of *Metapeneus* is based seems poorly defined in view of the concurrent defence (Dr. Holthuis's paragraphs 3c, 3d, 5a, 5c) of his previous proposals to remove various familiar Peneid names from use. As already pointed out in my commentary, the name *Metapeneus* has not enjoyed any extended recent period of general acceptance (having been synonymized with *Peneopsis* by Holthuis, 1949, and with *Mangalura* by Burkenroad, 1959). Neither has any satisfactory account of the species of the group yet appeared, such as would command special consideration for the terminology therein employed.

Other points in Dr. Holthuis's rejoinder seem to have been covered in my previous comment except for documentation of the questions whether Bate ever used the word " type " in the sense of the Code, and whether he introduced the names *Peneopsis* and *Peneopsis serratus* on " the responsibility not of " himself but of A. Milne-Edwards (to cite the words of Article 51c of the revised Code).

As far as I am aware, wherever Bate's context gives a clue to what was meant in his sporadic use of the word " type ", the sense is merely " representative ", and is not that of the Code. For example (1881, *Ann. Mag. nat. Hist.* (5) **8** : 179) he says : " The type-specimens . . . of *P. monodon* in the collection of the Jardin des Plantes . . . were too small for the full development of the parts " ; but it is clear from his other remarks that what he refers to are the Edwardsian representatives of this Fabrician species. Thus, the only meaning within the Code which could be attached to Bate's statement is, that he was designating the Edwardsian specimens as neotypes (but if so, this would have priority over the Javanese " neotype " defended in Dr. Holthuis's paragraph 3). Likewise, in objecting to a restriction of *Palaemon*, Fabricius which " corresponds with *Palaemon carcinus*, Fabricius, but not with either *Palaemon serratus* or *Palaemon squilla* ", Bate (1888, *Rept. Challenger Zool.* **24** : 779–781) says that " . . . the typical forms of the genus are *Palaemon squilla* and *Palaemon serratus* . . . Dr. Stimpson altogether excludes the typical species, or those on which the earlier carcinologists founded the genus, but transfers them to *Leander* . . . " ; and concludes with the statement " *Palaemon* . . Type *Palaemon serratus* (Pennant) and *Palaemon squilla* (Linné) ".

As to the authorship of *Peneopsis* and *P. serratus*, Bate's words (1881, *ibid.* : 182–193) are : " *Penaeus serratus* n. sp. . . . closely resembles that which A. Milne-Edwards has named *Penaeopsis serratus* . . . for which he proposes to make a new genus, *Penaeopsis* . . . I have not had an opportunity . . . to feel quite certain that the genus is a good determination . . . " " Genus *Penaeopsis*, A. Milne-Edwards, MS. . . proposed by Alphonse Milne-Edwards for those *Penaei* which do not belong to *Solenocera* " " *Penaeopsis serratus*, A. Milne-Edwards, MS. . . . it is difficult . . . to determine where the genus can naturally be separated ; and without any other distinguishing feature it can only be accepted as provisional ".

By Fenner A. Chace, Jr. (*Smithsonian Institution, Washington, D.C., U.S.A.*)

It is with real regret that I feel compelled occasionally to oppose applications submitted by my good friend, L. B. Holthuis. No specialist on decapod Crustacea has the ability to develop a case for consideration by the Commission as thoroughly and as fairly as he can. No one of this, or perhaps any, generation has added as much to our knowledge of natantian decapods. My only real differences of opinion with Dr. Holthuis are concerned with the best means of attaining nomenclatural stability—whether by free or by restricted use of Article 79 of the Code.

It is apparent that each of the methods suggested for standardizing the spelling of the generic names derived from the name *Penaeus* has zealous proponents. It may therefore be questioned whether either the *e* or the *ae* spellings would be adopted by all carcinologists. The confusion that has existed in the past and that may well persist in the future, regardless of the action taken on this application, is not so important that the use of the plenary powers in this case is necessary or desirable. Any of the names under consideration may be spelled with either an *e* or an *ae* without causing any misinterpretation of the identity of the animals concerned. I therefore recommend that the original spellings of all of the generic names derived from *Penaeus* be retained, in accordance with Article 32 of the Code. Use of the verb " correct " on page 104, line 46, of the application is somewhat misleading. The proposed changes are invalid emendations, which can be validated only by invoking the plenary powers of the Commission, as noted on page 111, line 3.

If, however, the Commission decides that action should be taken to standardize the spellings of these names, I would support the adoption of the *ae* spellings for the reasons given in the application on page 104, line 29 to end of paragraph. Of particular importance in my opinion is the fact that *Penaeus*, with the *ae* spelling, is already on the Official List of Generic Names. My antipathy toward excessive use of the plenary powers is surpassed only by my aversion to unnecessary alteration of names on the Official Lists. If the immutability of those names is threatened too often, the struggle for nomenclatural stability will become meaningless.

As indicated on page 105 of the application, the emendation of *Aristaeomorpha* to *Aristeomorpha* is not of great importance. An equally strong argument might be made for changing *Aristeus* to the linguistically correct *Aristaeus*, but I recommend that both names be retained in their original spellings.

There can be little objection to the suppression of both parts of the publication by Tilesius von Tilenau, as suggested on pages 105 and 106 of the application. In my opinion, that is an example of the rare instances when use of the plenary powers is justified. I therefore support the application in that respect.

The case of *Metapenaeus* discussed on pages 106 and 107 of the application, on the other hand, is an example of the numerous attempts to invoke the plenary powers when, to my mind, they are unnecessary and unjustified. As stated in the last paragraph of the discussion, *Metapenaeus* was not well defined until 1934. Very strong justification should be demonstrated before action under the plenary powers is invoked twice to preserve a name that has been stable for less than thirty years. Neither *Metapenaeus* nor *Parapenaeopsis* has been so widely used in the non-technical literature during that period that the correction of the concepts of those names " should be avoided at all costs ". If, on the other hand, the primary provisions of the Code are upheld and the genera currently known under those names are changed to *Mangalura* and *Metapenaeus*, respectively, there is little doubt that the temporary confusion caused by those changes will virtually disappear before another thirty years have passed.

By Thomas E. Bowman (*Smithsonian Institution, Washington, D.C., U.S.A.*)

I agree with Holthuis that it is highly desirable to achieve uniformity in the spelling of generic names of peneid shrimps. I believe, however, that it is preferable to derive the names from *Peneus* rather than from *Penaeus*. As Holthuis points out *Peneus* is linguistically correct. His argument that Fabricius might have formed the name *Penaeus* by an arbitrary combination of letters appears rather far-fetched. It is a legalistic argument and should be given little weight by the Commission. It is highly probable that the *Penaeus* of Fabricius is the *Peneus* commented on by Grensted, and I hope the Commission will assume this to be the case in making its decision.

The argument that more names are derived from *Penaeus* than from *Peneus* seems to me unimportant. If some names are to be changed in order to attain uniformity, it matters little in the long run whether five names or ten names are changed. It is much more important to use the linguistically correct name, especially when it has the great additional merit of having the simpler spelling. Possibly slightly more confusion will result in the immediate future from basing names on *Peneus* than from basing them on *Penaeus*, but at most this confusion will only be temporary. From the long range point of view, it seems to me that the most sensible action for the Commission would be to place *Peneus* and the names derived from it on the Official List of Generic Names, and *Penaeus* and the names derived from it on the Official Index of Rejected and Invalid Generic Names. The benefits derived from this action would far outweigh the resultant slight and temporary confusion.

COMMENT ON THE TYPE-SPECIES OF *AMMODISCUS* REUSS, 1862. Z.N.(S.) 1087.

By D. M. Rauser-Chernousova, V. G. Morosova and V. A. Krasheninnikov
(*Geological Institute of the Academy of Sciences of the U.S.S.R.*)

(see volume 19, pages 27–34)

The genus *Ammodiscus* Reuss, 1862, in accordance with the definition of the author of the genus included evolute planispirally coiled foraminifera with agglutinated wall. Later this generic name was used in the designation of family (Ammodiscidae) and order (Ammodiscida). For a century most micropaleontologists were agreed with this determination of the genus though it was known that Reuss did not mention the type-species. For this reason Macfadyen's proposal concerning the preservation of the generic name for corresponding agglutinated forms in order to stabilise the nomenclature should be supported. Unfortunately this proposal ignores previous revisions and leads only to confusion. Macfadyen's article was directed mainly against A. Loeblich and H. Tappan (1954, *J. Wash. Acad. Sci.* **44** (10) : 306–310) who had tried to suppress the designation of the genus *Ammodiscus* Reuss, 1862, and to substitute for it the designation of the genus *Involutina* Terquem, 1862.

2. As was shown by A. A. Gerke (1960, *Sbornik statei po paleont. i biostratig., Trudy Nauchno-issled. inst. po geologii Arktiki*, vtp. **19** : 5–18) and independently and almost simultaneously by A. Loeblich and H. Tappan (1961, *Micropaleont.* **7** (2) : 189–192) the latter authors in their preceding paper (1954) had been wrong when they took *Involutina silicea* Terquem for the type-species of the genus *Involutina*. *Involutina jonesi* Terquem et Piette, 1862 = *Nummulites liassicus* Jones, 1853, should be considered the type-species of the genus. Having considered this question very carefully A. Gerke, A. Loeblich and H. Tappan gave exhaustive and convincing proof of the validity of the genus *Ammodiscus* in the common sense. We fully join with this opinion.

3. The second question discussed by Macfadyen touches on the type-species of the genus *Ammodiscus* Reuss, 1862. The species *Spirillina arenacea* Williamson, 1858, was recommended by Macfadyen as the type-species of *Ammodiscus* Reuss, 1862. However, it is impossible to agree with the above-mentioned proposal on account of the two reasons following :

a. This proposal contradicts the International Rules of Zoological Nomenclature according to which any subsequent author cannot ignore the lectotype established by A. Loeblich and H. Tappan in 1954. A. Gerke in 1960 and A. Loeblich and H. Tappan in 1961 proved that *Involutina silicea* Terquem, 1862, was the type-species of the genus *Ammodiscus*. This was ascertained in 1872 by L. Bornemann who had described *Involutina silicea* Terquem with finely agglutinated wall under the erroneous designation *Ammodiscus infimus* Bornemann. " This real form corresponds fully to his (Bornemann's) understanding of the genus *Ammodiscus* and also corresponds to the representations of A. Reuss and other investigators of this genus. The latter was established rather precisely as a result of the work of many authors who had carried out the careful examination of Terquem's original material " (A. Gerke, 1860, p. 11). We are completely agreed with Gerke's words.

b. *Ammodiscus arenaceus* (Williamson) proposed by Macfadyen as the type-species of *Ammodiscus* cannot be referred to the genus *Ammodiscus* Reuss. This species rather belongs to the genus *Glomospirella* Plummer, 1945, because it is characterised by having glomospirine coiling of earlier whorls and planispiral coiling of later ones. Recognition of this species as the type-species of the genus *Ammodiscus* will cause new unnecessary difficulties but will not lead to stabilisation of the nomenclature.

Bull. zool. Nomencl., Vol. 20, Part 4. July, 1963.

THE CASES OF *PURPURA* AND *CERATOSTOMA*. Z.N.(S.) 1088.

By J. Chester Bradley and Katherine V. W. Palmer

Hall (*Bull. zool. Nomencl.* **18** : 336) has asked the Commission to reject the name *Purpura* (which he erroneously ascribes to Martyn, 1784) and to place *Ceratostoma* Herrmannsen, incorrectly believed by Hall to be an emendation of *Cerostoma* Conrad, on the Official List of Generic Names. By stating that the " genus in question " (by which he means the taxonomic genus implied by *Ceratostoma*) was first recognised by Martyn under the name *Purpura*, he implies that the nominal genus *Ceratostoma* Herrmannsen is a synonym of *Purpura* which is not the case even if the latter, as dated from Martyn, 1784, had any nomenclatural status.

The availability and type of *Purpura*

The generic name *Purpura*, a name used by ancient authors, appears to have been definitely introduced into zoological literature by Rondelet in 1555. Hermannsen recorded six other authors who used it prior to 1758. It has been for so long a period so fully ensconsed in the minds and on the tongues of those fond of the sea and its inhabitants that it would be a very serious matter to disturb it. It is just the sort of case in which use of the plenary power is most appropriate.

In 1777, F. H. W. Martini in the Neues systematisches conchyliencabinet, vol. 3, p. 287, referred to the rock-snails as the " Familie der Purpurschneckken " and used the generic name *Purpura* in connection with several species. Opinion 184 ruled that this work is not binominal, but binary, that its generic names are available until such time as such non-binominal names are ruled out, when their position would have to be re-examined. That time has now arrived and we ask the Commission to re-examine the position of *Purpura* and see whether it should be regarded as having been established by Martini in 1777 or by a later author. If by the former, ruled a non-binominal author by Opinion 184, then it was established as a genus without species, because by the same Opinion, Martini's species are ruled to be without nomenclatural status.

The nominal genus *Purpura* was used in 1783 by Johann Heinrich Linck in his Index Mus. Link, v. 1, p. 107 [not seen by us] a non-binominal work rejected by Sherborn, 1902, Index animalium, and by the Nomenclator animalium generum et subgenerum of the Prussian Academy of Sciences, 1935. It was again used by T. Martyn Univ. Conch. in 1784, also a non-binominal work. Opinion 456 ruled that this work possesses no status in zoological nomenclature.

Friedrich Christian Meuschen made a further contribution towards establishing a genus *Purpura** but we conclude that he was no more successful, from the standpoint of modern zoological nomenclature, than his predecessors had been.

Meuschen treated the snails in question on p. 308 in Latin, with the same translated into French on p. 309. We quote :

> " Genus XVIII. Purpurae
>
> " 621 *P. Histrix*, magnus, cauda corpore duplo longiore corpus ventricosum, spinae concavae, curvae ad apicem, longissimae trifariam posticae interjectis minoribus, *Linn.* 519 a. s. o. *Rumph.* 26.3. *Gualth.* 31. *A. a. Argenv.* 16. *A. Hollar Icon.* 22. long. 6 lat. 3 poll. (1. specim. 363.
>
> " 622 *P. Histrix*, praedecenti similis, sed minor, *Linn.* 519. a.s.o. *Seba III.* 78. 1–3. long. 4½. lat. 2¼ poll. (1 specim. 363. b."

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* Gevers, Abrahamus. Museum geversianum sive Index rerum naturalium continens instructissimam copiam pretiosissimorum omnis generis ex tribus regnis naturae (quam dum in vivis erat magna diligentia multaque cura comparavit) vir amplissimus Abrahamus Gevers . . . cura F. C. M. Rotterodami apud P. et L. Holsteyn, MDCCLXXXVII, p. 308, 309.

Sherborn in his Index animalium, p. xxxix, under this entry, but imprint [à la Haye, 1787] wrote " [Contains Meuschen's Schediasma syst. Testac. This part has been accepted, Meuschen's trinominals are his binominals plus " forma " = " varietas ", and precisely similar to the trinominals used by mammalogists in the present day.] " We do not see that these remarks apply to " Purpurae ".

Since Meuschen did not use the singular form *Purpura*, his heading " Genus XVIII Purpurae " seems to have been applied not as a generic name but to an assemblage of species, but when one comes to regard these individually, probably he meant the " P " to stand for the singular *Purpura*.

Why he repeats the same specific name *histrix* for two successive species is not clear. He did this repeatedly in Buccina on the same page, and doubtless in other genera (we do not have photocopies of other relevant pages of this rare work) sometimes repeating the same name for three consecutively numbered species. These numbers do *not* apply to museum specimens, because he adds the number of specimens and museum numbers at the end in each case. We are indebted to Dr. Myra Keen for locating a copy of Meuschen, 1787 and to Druid Wilson for providing the copy of the necessary pages.

Although Sherborn, *loc. cit.*, attributes *Purpura* to Meuschen, we conclude that that cannot be done under the current rules. Nevertheless it is a point upon which we ask the Commission to rule.

In 1789 Bruguière, Ency. Method., Text, Vers. v. 1, fasc. 1, pt. 15, p. XV made the name *Purpura* available by publishing it with a short description as his genus no. 41. Whether or not this description was taxonomically adequate for recognition is not a nomenclatural consideration. No species were mentioned.

The first binominal author to put a species in *Purpura* was Lamarck, 1799, Prodrome d'une nouvelle classification des coquilles, *Mem. Soc. d'hist. nat. de Paris*, 63–85. In his genus 13, *Purpura*, he listed a single species, *Buccinum persicum* L., which thereupon became type by monotypy.

Denys de Montfort, *Conchyl. syst.*, v. 2, 1810, p. 467 referred to Bruguière as the author of *Purpura*, redescribed the genus, and designated *Purpura persicus* as the " Espèce servant de type au genre ". This is usually accepted as the first type fixation which is not the case.

This case has been fully discussed by Clench in *Johnsonia*, v. 2, No. 23.

Purpura Bruguière, 1789, is thus seen to be the valid, continuously and currently used name for any abundant genus of Muricidae of which the type is *Murex persica* L. It was a most happy choice of name because the animal exudes the royal purple which the ancients obtained from shells of that family.

We now ask the Commission :

(1) To rule that the name *Purpura* Martini, Neues systematisches conchylien-cabinet, vol. 3, p. 287, ruled a non-binominal work, is without nomenclatural status.

(2) To place *Purpura* Bruguière, 1789, type by monotypy : *Buccinum persicum* L., on the Official List of Generic Names in Zoology.

(3) To place the following on the Official List of Family-Group Names in Zoology :
  (a) Purpuridae Broderip, 1839, Penny cyclop., v. 14 ;
  (b) Purpurinae Swainson, 1840, Malac. p. 71.

(4) To place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
  (a) Purpuracea Menke, 1828, Syn. meth. molluscorum, p. 34 unless used for a category for which the termination -acea is permissible ;
  (b) Purpurifera Lamarck, 1812, Extrait du cours de zoologie, 1822. Hist. nat. anim. sans vert., v. 7, p. 213 ;
  (c) Purpurites Waller, 1778, Syst. min., v. 2, p. 492.

There is no real relationship between the case of *Purpura* and of *Cerostoma*, which should have been presented separately.

The Status of *Ceratostoma*

Hall states that Herrmannsen, 1846, (Ind. gen. malac., v. 1, p. 206) emended *Cerostoma* Conrad to *Ceratostoma*. We can not agree with that interpretation of what Herrmannsen actually did. On page 206 a paragraph is headed in blackface type, in its normal alphabetical sequence *Cerastoma* Conrad, 1837. That is clearly the name that he adopted as nomenclaturally the available name. In a sub-paragraph he explains the etymology, giving the Greek words from which the name was derived, then adding " Rectius Ceratostoma vel Cerostoma " but it certainly can not be concluded that the mere mention of what the proper spelling should be on an etymological basis constitutes proposal of an emendation. If we look further down his alphabet, we find the blackfaced headings of entries, p. 207, " Ceratostoma vid. Cerastoma ", so it is clear that neither of these spellings can be attributed to Herrmannsen, *Cerostoma* being Conrad's original spelling.

So far as we are aware, the first author purposely to adopt " *Ceratostoma* " as an emendation was Dr. Paul Fischer, 1887 (Manuel de conchyliologie, p. 642) ; he regarded it as a subgenus of *Ocenebra*, which Thiele, 1929 (Handbuch der syst. Weichtierekunde, p. 299) regarded as a junior synonym of *Tritonalia* Fleming, 1828. On this same page Thiele accepted Fischer as the author of the emendation *Ceratostoma*. Since *Cerastoma* Conrad, 1837, type by monotypy *C. nuttali* Conrad, is a preoccupied name, Thiele acted correctly in adopting Fischer's emendation *Ceratostoma*. Hall, as a taxonomist, has the privilege of giving the taxon generic status if he so desires.

Ocenebra was established by Gray in 1847 (*Ann. Mag. nat. Hist.*, Oct. 1847, p. 200) with the type-species *erinacea*, (*i.e. Murex erinaceus* L.)

Tritonalia was established by Fleming, 1828 (History of British animals, p. 356) under the name *Triton* which was corrected in the Corrigenda to *Tritonalia*. " *T. erinaceus* " was cited as the first and only extant species. Gray (*Proc. zool. Soc. London*, Nov. 1847, p. 143) listed it as a synonym of *Ocenebra*. Wenz (Handb. der Palazoologie, Bd. 6, Teil 5, Gastropods, Lf. 7, 1941, p. 1126) indicated that *Murex erinacea* L. is the type. He attributed this selection to Gray, Nov., 1847, but it is not clear that Gray meant *erinacea* to be type of both *Ocenebra* and *Tritonalia*, yet he probably did so. It is highly improbable that anyone else has selected one of the originally included fossil species as type.

Mr. R. Winkworth (Names of British Mollusca, Journ. conch., 1934–37, 20 : 14) discussed *Ocenebra* and *Tritonalia*, but we can not support his conclusion. He is quite correct in writing that Fleming, 1828, used *Triton* twice and in the corrigenda changed *Triton* (the shell) to *Tritonalia*. Since this change was published in the original volume it is a perfectly valid substitution. But Winckworth then assumed that Fleming was writing about *Triton* Montfort, which was not the case. *Triton* Fleming, i.e. *Tritonalia* was based on *Murex erinaceus* and some fossil species. As elsewhere indicated we believe that *erinaceus* is the type. It is a genus of Muricidae. Fleming made no reference to Montfort. The type and only original species of *Triton* Montfort is *Murex tritonis* L., which is a totally different shell of the family Cymatiidae. *Triton* Montfort, 1810, is therefore a different genus from *Triton*, *i.e. Tritonalia* Fleming, 1828. Therefore Winckworth erred when he maintained that *tritonis* is the type of *Tritonalia*.

Pterorytis Conrad, 1862 (*Proc. Acad. Nat. Sci., Phila.*, 1862, p. 560, monotype : *Murex umbrifer* Conrad, a Tertiary fossil) is listed by Wenz as a subjective synonym of *Ceratostoma*, and for any who accept this synonym it has priority over *Ceratostoma* Fischer, 1887.

All these are problems of ordinary routine, that raise no problems that the Commission need solve. However, since they have been worked out it seems worth while to ask the Commission :

(1) To place the following names on the Official List of Generic Names in Zoology :
   (a) *Ceratostoma* Fischer, 1887, a replacement name for *Cerostoma* Conrad, 1837, type by monotypy *C. nuttali* Conrad.
   (b) *Tritonalia* Fleming, 1828, type by subsequent designation (Gray, 1847) *Murex erinaceus* L.

(2) To place the following name on the Official Index of Rejected and Invalid Generic names in Zoology :
   Cerostoma Conrad, 1837 *nec* Latreille, 1802.

By Clarence A. Hall (*University of California, Los Angeles, California, U.S.A.*)

I recently received a copy of a comment by Bradley and Palmer [printed above] on my petition to add *Ceratostoma* Herrmannsen, 1846, to the Official List of Generic Names.

Because Martyn's name *Purpura* (*Ops. Decls. int. Comm. zool. Nomencl.* **15 : 393**) has no status—making obsolete request (3) (a) of my petition—I suggest that the question of *Purpura* be considered separately from *Ceratostoma*.

Since Herrmannsen used the name *Ceratostoma* 41 years before Fischer (1887) and obviously did so purposely, I cannot agree with Bradley and Palmer—but this is the crux of the problem that must be decided on by the Commission. I would request that only arguments germane to *Ceratostoma* are considered, so as not to cloud the issue.

COMMENT ON THE PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A NEOTYPE FOR *RANA FASCIATA* BURCHELL, 1824

Z.N.(S.) 1253

By Hobart M. Smith (*Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.*)

(see volume 19, pages 290–292)

Obviously the long-established association of the nominal species *fasciata* with the biological species that has universally been known by the name *Rana fasciata*, at least since 1849, must be maintained. A transfer of name from one species to another is unthinkable in modern nomenclatural practice, at least among species as commonly known and cited as these.

However, as a general policy, to which in my opinion the present case is no exception, it is surely unwise to designate a neotype which does not represent the species to which the name was originally applied. If at all possible, surely the stringent requirements of the 1961 Code relative to neotypes should be held inviolate, particularly the requirement of the maximum reasonable correspondence of neotype and the original type (or whatever the original onomatophore might be).

This general policy may be maintained in the present case by the simple device of validating the name *fasciata* as of Smith, 1849 (with exactly the same lectotype as requested by Drs. Parker and Ride), and at the same time invalidating, by a blanket decree, all earlier usages of the name *Rana fasciata*. In this way the neotype of *Rana fasciata* Smith, 1849, will actually represent the species of the description the Commission designates as " original ", rather than a species different from the neotype as would be true if the neotype is designated for Burchell, 1824. Since the latter author has in the past been rarely cited as the original source of the name, and since by either Parker and Ride's recommendation or the present one a change in author name is required, the names of Burchell and Smith are of equal merit in this particular point.

In every other particular, approval by the Commission of the proposals pertaining to this case is strongly recommended.

In summary, it is here requested that the Commission approve the proposal in its entirety except that : (1) the neotype of *Rana fasciata* be fixed with Smith, 1849, rather than with Burchell, 1824, to preserve as closely as possible common identity of type and original description ; (2) Smith's usage of 1849 be designated as the original usage of *Rana fasciata* ; and (3) all earlier usages of *Rana fasciata* be declared invalid and unavailable from the stand-point of the Laws both of homonymy and priority.

J. C. Poynton (*University of Natal, Pietermaritzburg, South Africa*)

I am at the last stages of completing a taxonomic revision of the Amphibia of southern Africa, and I want to endorse most strongly the proposals of Parker and Ride. It seems highly probable that *R. fasciata* Burchell is the form that has been called *R. grayi* for over a century, and a change of names would cause much greater confusion than uniformity. Furthermore, Burchell's description is inadequate, and it cannot be demonstrated unequivocally that *R. fasciata* Burchell is *R. grayi* of later authors. Consequently, in the existing state of affairs, complete stability can never be achieved.

Therefore I believe that there is every reason and justification for the International Commission to use its plenary powers in this case. The suggestions of Parker and Ride as to how the Commission should use its powers appear to be the best that can be made. I have examined the proposed neotype of *R. fasciata*, and I agree with the authors that it was probably the specimen used in the preparation of Smith's figure of *fasciata* (*Illustr. Zool. S. Afr.* pl. 78). As this figure has been the point of reference of all subsequent authors, it can be considered to have already stabilized the name in practice. All that is needed to finalize the stability of this name—and that of *R. grayi*—is to place the names on the Official List, as proposed by Parker and Ride.

As the publication of my revision of the Amphibia of southern Africa is being held up over this matter, it would be much appreciated if it could be dealt with as speedily as possible.

PHASMIDAE *vs.* PHASMATIDAE: COMMENT Z.N.(S.) 1167

By D. K. McE. Kevan (*McGill University, Canada*)

I read with some dismay that there is a likelihood of the spelling of the family name, PHASMATIDAE, being altered back to PHASMIDAE, largely at the suggestion of Commissioner Mayr (*Bull. zool. Nomencl.* **19**(5) : 274–279, 294). I wish to register my opposition to such a move.

As indicated by Commissioner Key, Commissioner Mayr apparently did not search the literature any too thoroughly before he made his statement regarding the lack of zoological works using the grammatically correct spelling. In addition to the well-known general references quoted by Commissioner Key, other general works in which the spelling PHASMATIDAE is used could be cited, e.g., the widely used college text by D. J. Borror, and Dr. M. Beier's (1957) contribution to the authoritative " Bronn's Klassen und Ordnungen des Tierreichs " **5**(3) : 425. Also, without combing the specialist literature, I can cite at least three of my own taxonomic papers (the second with the orthopterist, Prof. L. Chopard, as co-author) in which the spelling PHASMATIDAE is deliberately used in order to conform with proper usage (1950, *J. E. Afr. nat. Hist. Soc.* **19** : 199 ; 1954, *Entomologist* **87** : 115 ; *Beitr. Ent.* **5** : 474).

Admittedly, the above references are not very numerous, but the literature on Phasmatodea in general is not very voluminous. Physiological papers dealing with *Carausius morosus*, a species usually incorrectly placed in the genus *Dixippus* are an exception, but the authors seldom used a family name of any sort. Most recent workers on the Phasmatodea, in fact, have concerned themselves little with systematics and probably not at all with nomenclature. Further, although it is true, as Commissioner Mayr asserts, that the spelling PHASMIDAE is much commoner in the literature than PHASMATIDAE, much of that literature dates from a time when less attention was paid to the correct formation of family names, and the more recent literature mainly follows " tradition " uncritically. Had the Phasmatodea been a well-studied group like the birds (with which Commissioner Mayr is so familiar), I have no doubt that the family name would be spelt PHASMATIDAE much more frequently and possibly even consistently. I would also endorse Commissioner Hemming's remarks (*Bull. zool. Nomencl.* **19**(5) : 278), for I believe that the relatively few workers who are likely to be concerned with the nomenclature of the group would have no difficulty in getting used to so slight a " change " as this, when the whole taxonomy of the order is far from being well understood. Non-specialists also make reference to the family name rather infrequently.

The fact that the name PHASMATIDAE in the current sense refers only to part of what are usually included in the " PHASMIDAE " in general (usually outmoded) texts is, to my mind, a very good subjective reason for using the former, rather than the latter.

Also, since the ordinal name Phasmatodea (properly formed) has found fairly wide acceptance (and has been used much more frequently than PHASMATIDAE), it would appear illogical to use PHASMIDAE (improperly formed) for one of the contained families and we should have to revert to Phasmida also or adopt the less familiar Cheleutoptera.

I consider that the Commission would be treating the matter too lightly if it were to perpetuate the name PHASMIDAE. Its plenary powers should only be used where serious confusion would result if the rules were followed. I do not believe such to be the case in the present instance. Might I also draw the Commissioner's attention to the suprafamily-group name Phasmidia (Nematoda) (which doubtless contains species parasitic in Phasmatodea !). One could foresee confusion if the spelling PHASMIDAE were sanctioned.

COMMENTS ON THE PROPOSED REJECTION OF THE TYPE DESIGNATIONS OF JORDAN & EVERMANN, 1896-1900 AND 1896.

Z.N.(S.) 1279

By Carl L. Hubbs (*University of California, U.S.A.*), Dr. Leonard P. Schultz, Dr. Victor G. Springer (*Smithsonian Institution, Washington, U.S.A.*), and John E. Randall (*University of Puerto Rico*)

(see volume 19, pages 220–229)

The *Bulletin of Zoological Nomenclature*, volume 19, part 4, pp. 220–229, 1962, contains a " Request for a ruling that Jordan and Evermann did not designate type-species validly in either their work dated 1896–1900 or that of 1896 (Pisces) Z.N.(S). 1279." The undersigned believe that : (1) Designations of type-species of genera in Jordan and Evermann, and in Jordan and other co-authors must be considered from a historical standpoint and not only as in the application cited above ; (2) A ruling which would invalidate the generally accepted type-species designation in the two Jordan and Evermann publications cited may cause unpredicted confusion in zoological nomenclature because many additional publications and authors with similar circumstances would be affected.

Historical Background : Jordan and Gilbert (1883) (*Bull. U.S. nat. Mus.* **16**) published the " Synopsis of the Fishes of North America ", in which they cited types of genera by using the word " type ". Jordan and Evermann (*Bull. U.S. nat. Mus.* **47** : parts 1–4, October 3, 1896 to 1900) state (part 1, p. vi), " The present work is, in a sense, a revision of the ' Synopsis of the Fishes of North America ' published in 1883 . . . ". Jordan and Evermann almost invariably used the same type designations, showing that they had the same idea as Jordan and Gilbert.

The earliest publication observed by us in which type-species were included in parentheses, is that by Jordan 1891 (" A review of the labroid fishes of America and Europe ", *Rept. U.S. Comm. Fisheries*, 1887, pt. 15, pp. 599–699, pl. 1–11). For example, " *Centrolabrus* Günther, Cat. Fish. Brit. Mus., iv, 92, 1862 (*exoletus*). Type *Labrus exoletus* L.". Two species are included in the genus.

Other examples of designating the type-species in parentheses are : Jordan and Davis, 1892 (*U.S. Comm. Fish and Fisheries*, Rept. Comm. 1888 : 581–677) on page 589 list a new subgenus *Rabula*, as follows, " *Rabula* Jordan and Davis, subgenus nova (*aquae-dulcis*)." The subgenus included five species, but only one is included in parentheses. Cope (1872, *U.S. Geol. Surv. Montana*, etc. (1871 : 474)) described the type-species as *Muraena aquae-dulcis*. Jordan and Evermann, 1896 (*Bull. U.S. nat. Mus.* **47 :** 390), list under the genus *Rabula* : " *Rabula*, Jordan and Davis, ' Apodal Fishes ' ", *Rept. U.S. Fish Comm.*, viii, 1888 (1892), 589 (*aquae-dulcis*) ". Here they included only four of the five originally mentioned species. Later, Jordan " Genera of Fishes ", Part 4, p. 458, 1920, lists " *Rabula*, Jordan and Davis 590, [589] ; orthotype *Muraena aquae-dulcis* Cope.

Jordan in the " Genera of Fishes " (part II, page 165, 1919), states : " The term orthotype is applied to the type of a genus as indicated or distinctly implied by the original author ", and the term " orthotype " is cited extensively in the " Genera of Fishes " for new genera published during the period 1891 to 1906.

The longtime and widespread use of type indications in parenthesis prevails in Jordan's papers and those of his co-workers, Evermann, Gilbert, Seale, Snyder, Starks, and others. It is especially notable in the papers published in the *Bulletin* and the *Reports of the U.S. Fish Commission* and in the *Proceedings of the U.S. National Museum* up to 1905. *Bull. U.S. nat. Mus.* **47** contained 1113 genera, 127 of which were new. In dozens of other publications by these authors new genera were proposed, and for old and new genera the type-species was indicated in parentheses. Examples are : (1) Jordan and Snyder, " A review of the Apodal fishes or eels of Japan, with descriptions of nineteen new species " (*Proc. U.S. nat.*

Mus. **23** : 837–890, 1901) ; (2) Jordan and Starks, " A review of the Cottidae or sculpins found in the waters of Japan " (*Proc. U.S. nat. Mus.* **27** : 231–335, 1904) ; (3) Gilbert, " The aquatic resources of the Hawaiian Islands, Sec. II, The deep-sea fishes " (*U.S. Fish Comm. Bull.* **23** : 575–713, 1905) ; (4) Jordan and Seale, " The, fishes of Samoa " (*U.S. Bur. Fish Bull.* **25** : 175–455, i–xxx, 1906) ; (5) Fowler " New, rare or little-known Scombroids No. 2 " (*Proc. Acad. nat. Sci. Philadelphia*, pp. 56–88, 1905).

This method of type indication was not confined to fishes. For example, Walter K. Fisher, " New starfishes from deep water off California and Alaska " (*U.S. Bur. Fish. Bull.* **24** : 293–320, 1905), indicated the types of old genera in parenthesis, for example : (p. 315), " *Zoroaster* Wyville Thomson, ' The Depths of the Sea ', 154, 1873 (*Z. fulgens* Wyville Thomson) ".

Intentions of authors in designating the type species : The intentions of Jordan and his co-authors on this matter were quite definite, because they clarify the practice in their writing by making definite statements concerning the type-species of new genera ; examples are : (1) " *Kelloggella* Jordan and Seale, new genus of Gobiidae (*cardinalis*) " (l.c., p. 409) is followed by : " This genus, typified by *Kelloggella cardinalis* . . .". Two species are included under the new genus, *Kelloggella*, demonstrating that only the designated type-species was included in parenthesis ; (2) Following, " *Vaimosa* Jordan and Seale, new genus of Gobiidae (*V. fontinalis*) " (l.c. p. 395) the authors state : " . . . the type is *Vaimosa fontinalis* . . ." ; (3) Jordan and Snyder (*Proc. U.S. nat. Mus.* **23** : 882, 1901) established a new genus as follows : " *Aemasia*, Jordan and Snyder, New Genus (*lichenosa*) ". Then they state : " Doubtless some of the species hitherto referred to *Gymnothorax* belong to this genus, but none of them known to us have such an array of bristling teeth as the type of *Aemasia* " ; (4) Gilbert, in the " The Deep-Sea Fishes " (*U.S. Fish. Comm. Bull.* **23** : 585, 1905), describes throughout the paper monotypic new genera and includes a species name in parenthesis without stating specifically that it is the type of the genus, for example :

" *Metopomycter*, new genus "

" . . . The genus includes the type-species [not specifically mentioned at this point] and *Nettastoma parviceps* Günther . . .

Metopomycter Gilbert, new genus of Nettastomidae (*denticulatus*) ".

" *Metopomycter denticulatus*, new species "

The inference and implication are clear and without doubt or confusion.

Ichthyologists, generally up to the present, have not questioned the validity of the type-species being indicated or designated in a parenthesis and have even followed the practice at least as late as 1916 (Gilbert and Hubbs, *Proc. U.S. nat. Mus.* **51** : 135–214, Oct. 28, 1916) and 1918 (McCulloch, *Records Australian Mus.* **12** (2) p.9).

Furthermore, one of these authors (Dr. Hubbs), who collaborated with Dr. Jordan, feels certain that Dr. Jordan and his associates consistently regarded this practice as constituting definitive type designation.

Numerous type-species designations for genera described previously to Jordan and Evermann's 1896 publications will be affected, for example, in " Oceanic Ichthyology ", Goode and Bean (*U.S. nat. Mus.* Spec. Bull. 2, p. 39, 1895) proposed the new genus, *Conocara*, but did not designate a type-species. Two species were included in this genus by Goode and Bean. The first designation of a type-species was by Jordan and Evermann (1896, p. 287) by including "*macdonaldi*" Goode and Bean in parenthesis. This designation of a type-species has been generally accepted and illustrates how the type-species of genera may be first designated in parenthesis during the period up to Jordan's " Genera of Fishes ", 1919.

We believe that the statement by Jordan and Evermann (*Rept. U.S. Comm. Fish and Fisheries* **21** : 210, December 28, 1896) as follows, " The name in parenthesis following the reference to the generic name is that of the species taken by the describer as the type of the genus ", fulfills the requirements of Article 69 (a) (iii) for valid designation of type-species. We recommend that the Commission so rule. If this particular publication is rejected, type-species designations for genera described previously will be affected, for example, *Conocara* Goode and Bean.

That Jordan and Evermann (1896) actually regarded their practice as type designation is indicated by their use of both the original type-species name as well as the presently used synonym. Thus, they designated (p. 402) the type of *Pogonias* Lacépède as " (*fasciatus*=*cromis*) ", obviously because Lacépède used the name *Pogonias fasciatus* for the species called *Labrus cromis* by Linnaeus and *Pogonias cromis* by Jordan and Evermann.

This problem of the type-species in parenthesis is much more complicated than appears on first consideration. Jordan's (1917–1920) Genera of Fishes was not always consistent with Jordan and Evermann's 1896 check-list in recognizing the same type-species of a genus. For example, *Bathylagus* (*atlanticus-antarcticus*) ; and *Blennius* (l.c. 1896, 21 : 469) (*galerita*), whereas Jordan and Gilbert, 1883, restricted the type-species to " *Blennius ocellaris* L." and Jordan (1917, p. 12) recognized *ocellaris* as the type-species. Such inconsistencies can not be easily explained. We believe that each such discrepancy is a *lapsus calami*.

We do not think that zoological nomenclature would benefit by accepting all possible indications of " type " species in parenthesis, for example, Fleming, 1822 (Philosophy of Zoology, **2** : 382–396), before the type-species concept had jelled, listed a genus then a species in parenthesis.

Recommendations : We recommend (1) that when nomenclatural problems arise, such as the case presented for *Bathylagus*, that action be taken singly on the merits of each case ; (2) that the commissioners either table or reject the application by Dr. China " For a ruling that Jordan and Evermann did not designate type-species validly in either their work dated 1896–1900 or that of 1896 " because to invalidate type-species designations in those works may cause unpredictable confusion in zoological nomenclature ; (3) that Follett and Cohen's application for a " Ruling that the type-species of the genus *Bathylagus* Günther (A.C.I.G.), 1878, is the nominal species *Bathylagus antarcticus* Günther (A.C.I.G.), 1878 by selection by Jordan (D.S.) (1919 : 395) . . ." be tabled because the type-species was designated as *atlanticus*, by Jordan and Evermann (*Rept. U.S. Comm. Fish and Fisheries* **21** : 295, 1896) ; and (4) that Jordan's (" Genera of Fishes ", part 3, p. 395, 1919) designation of *B. antarcticus* Günther as the type-species be considered as owing to a *lapsus calami*. (5) That the commission rule that Jordan and Evermann in their 1896 check list did designate type-species in parenthesis.

If the applications cited above are not tabled the International Commission of Zoological Nomenclature is inviting numerous future applications to settle problems created by the action requested in these cases.

By George S. Myers (*Stanford University, Stanford, California, U.S.A.*)

I agree emphatically and completely with the communication from Hubbs, Schultz, Randall, and Springer in regard to the parenthetical designation of type-species of fish genera by Jordan and Evermann. As a former associate of Jordan I can state without reservation that the parenthetical citation of a single species name in generic references was definitely intended as citation of a generic type by Jordan and his co-workers. Any other interpretation would lead to the paradoxical conclusion that Jordan and Gilbert (1883, Synopsis) designated type-species, but that in a later work (Jordan and Evermann) types were no longer designated.

I agree that confusion might become very great if Jordan and Evermann's designations were to be wiped out by fiat.

By W. I. Follett (*California Academy of Sciences, San Francisco, Calif., U.S.A.*)
and Daniel M. Cohen (*U.S. Fish and Wildlife Service, Washington, D.C., U.S.A.*)

We welcome this request for a ruling, presented by Dr. W. E. China, which provides an opportunity for clarification of the question whether, in cases where no type-species had previously been fixed, Jordan and Evermann (1896–1900, *Bull. U.S. nat. Mus.* 47) or Jordan and Evermann (1896, *Rept. U.S. Comm. Fish and Fish.* 21) validly designated type-species by enclosing a single specific name within parentheses immediately after their reference to the original publication of the generic name.

In Opinion 513, the International Commission on Zoological Nomenclature ruled that the parenthetical citation of the name of one species, directly below the generic name, did not constitute a designation of that species as type.

In that case it had been argued (p. 298), as in the present case, that the author in question had indicated, " in as clear a manner as possible " at that time, that he *intended* the species cited in parentheses to be the type-species of the genus in question.

The following is quoted from a letter written by Mr. Curtis W. Sabrosky to W. I. Follett on 1 November 1961 : "After seeing so many shades of gray in all these situations, I stand by rigidly construing the term ' rigidly construed ', as the only objective measure . . . I have not examined Jordan and Evermann, but from the evidence submitted I would say that they cannot, in general, be construed to have designated the type in this work, though it may well be presumed that they had it in mind. But intent and deed are not the same thing. They may indeed be linked, but one can have intent without deed, and deed without intent . . ."

At the 1948 Paris Congress, it was proposed that an author should be treated as having selected a type-species if he states or implies, either correctly or otherwise, that that species had been selected by some previous author to be the type-species of that genus (1950, *Bull. zool. Nomencl.*, **4** : 182).

That proposal was rejected at the time of the enactment of the International Code of Zoological Nomenclature. The Code does not recognize as a valid type-designation a mere statement that the species in question *had been selected by some previous author* as the type. The Code recognizes as a valid type-designation only a statement that the species in question *is* the type.

Article 69(a)(iii) of the Code provides that " . . . an author is considered to have designated one of the originally included nominal species as type-species, if he states that it is the type (or type-species), for whatever reason, right or wrong, and if it is clear that he himself accepts it as the type-species ".

Article 67(c) requires that " the term ' designation ' in relation to the fixation of a type-species must be rigidly construed . . . ". This requirement emphasizes the necessity of restricting a valid type-designation to a statement that the species in question *is* the type.

It was specifically stated by Jordan and Evermann (1896, *Rept. U.S. Comm. Fish and Fish.* **21** : 210) that " the name in parenthesis following the reference to the generic name is that of the species taken by the describer as the type of the genus ".

The parenthetical citation by Jordan and Evermann (1896–1900, *Bull. U.S. nat. Mus.* **47**) of a single specific name immediately after their reference to the original publication of the generic name can be interpreted as a citation of the name of the species " indicated ", or " mentioned ", or " stated " by the describer to be the type of the genus, since in some cases Jordan and Evermann (*op. cit.*), instead of citing parenthetically a single specific name, cited parenthetically the words " No type indicated ", or " No type mentioned ", or " No type stated ".

Dr. Henning Lemche (1962, *Bull. zool. Nomencl.* **19** : 226) expressed the view that we must reject as a type-designation a statement like " the author N. N. regarded —— as the type ".

We perceive no significant nomenclatural distinction between a notation (on the one hand) that " the describer indicated (or mentioned, or stated) —— to be the type ", or that " the describer took —— as the type ", and a notation (on the other hand) that " the author N. N. regarded —— as the type ".

All three of these notations fall short of a statement that the species in question *is* the type.

To avoid possible confusion, the fixation by monotypy of the type-species of any monobasic nominal genus that was originally published by Jordan and Evermann in the work in question should be recognized as valid.

We therefore request that the Commission recognize as valid the fixation by monotypy of the type-species of any monobasic nominal genus that was originally published by Jordan and Evermann in the work in question.

In all other respects we support the request for a ruling, which was presented by Dr. W. E. China.

COMMENTS ON THE PROPOSED DESIGNATION OF A LECTOTYPE FOR *ASTERIAS NODOSA* LINNAEUS, 1758, AND ADDITION OF THE GENERIC NAME *PROTOREASTER* DÖDERLEIN, 1916, TO THE OFFICIAL LIST. Z.N.(S.) 1493.

(see volume 19, pages 174–176)

By W. I. Follett and Lillian J. Dempster (*California Academy of Sciences, San Francisco, Calif., U.S.A.*)

The specimen represented by pl. 3, fig. 3, of Linck, 1733 (*De Stellis marinis*), which Miss Clark has proposed as the lectotype of *Asterias nodosa* Linnaeus, 1758 (the type-species of the genus *Protoreaster* Döderlein, 1916), was cited by Schröter, 1782 (*Musei Gottwaldiani testaceorum* : 58) as referable to the genus *Pentaceros* Linck. If Schröter's citation of the name *Pentaceros* rendered that name available, the generic name *Protoreaster* Döderlein, 1916 (which Miss Clark seeks to conserve), would be a junior synonym of *Pentaceros* Schröter, 1782.

We do not regard *Pentaceros* Schröter, 1782, as an available name : it was published in a work in which the author did not consistently apply the principles of binominal nomenclature.

In 1908 Fisher (*Smithson. Misc. Coll.* 52 : 93) stated : " Schröter, in 1782 (*Musei Gottwaldiani Testaceorum*, *Stellarum marinum*, etc., Nürnberg, 58), used *Pentaceros*, but he is not a consistent binomialist, and his ' generic ' names are not tenable ".

Nevertheless, a number of authors have since used the name *Pentaceros* for a genus of starfishes : Brown, 1910 (*Proc. roy. phys. Soc. Edinburgh* **18** : 27, 32–34) ; Simpson and Brown (*op. cit.* : 47, 51–53) ; Koehler, 1910 (*Echinoderma of the Indian Museum*, part 6, Asteroidea (2) : 91–110) ; Tennent and Keiller, 1911 (*Carnegie Inst. Washington Publ.* **132** : 113) ; Clark and Twitchell, 1915 (*U.S. Geol. Survey Monogr.* **54** : 42, 237) ; Gravely, 1927 (*Bull. Madras Government Mus.* **1** : 169) ; Hucke and Voigt, 1929 (*Z. deutsch. geol. Ges.* **81** : 160) ; Edmondson, 1935 (*Bernice P. Bishop Mus. occ. Pap.* **11**(8) : 18) ; Cadenat, 1938 (*Rev. Trav. Pêches marit. Paris* **11** : 352).

Jordan and Evermann, 1917 (*Genera of Fishes* : 126) stated : " It is evident that *Pentaceros* has no standing in nomenclature prior to its use by Cuvier and Valenciennes [for a genus of fishes], unless given it by Schröter in 1782, *a matter which awaits decision* ". [Emphasis added.]

Smith, 1951 (*Ann. Mag. nat. Hist.* (12) **4** : 876) stated : " *Pentaceros* was first used by Schultz [misprint for Schulze] in 1760 for a Star-fish, but this is ruled as inadmissible. This name was again used in the same respect by Schröter in 1782, but objections have been raised against the validity of his nomenclature. *The matter is apparently still open, but should be settled since it has repercussions in two fields* ". [Emphasis added.]

Schröter used the name *Pentaceros* only in the following paragraph (p. 58) : " Fig. III. ist auf der Seite des Rückens vorgestellt, und kommt vor im Link [sic] *de stellis mar.* tab. III. fig. 3, auf der Rückenseite, und Tab. II. fig. 3, auf der Seite der Mündung. S. 21. 22. stehet er unter dem Geschlecht *Pentaceros*, der fünfhörnige Stern, und heisst *Pentaceros gibbus turritus pluribus velut turriculis munitus*. Die Seepastete Rumph holländ. p. 39. Beim Linné ist er ed. XII. p. 1100. Gen. 298. sp. 7. *Asterias nodosa* oder *Asterias stellata, radiis convexis longitudinaliter elevatis muricatis* . . .".

Schröter's use of polynominal Latin names in the foregoing paragraph and elsewhere in the same work demonstrates that he did not consistently apply the principles of binominal nomenclature in that work. The name *Pentaceros*, as published in that work, therefore does not fulfil the requirement of availability that is specified by Article 11(c) of the International Code of Zoological Nomenclature.

Furthermore, Schröter's citation of *Pentaceros* from a prelinnean author is a case similar to that considered in Opinion 5, in which the International Commission on Zoological Nomenclature ruled that a prelinnean name, ineligible because of its publication prior to 1758, did not become eligible by being cited, without adoption or acceptance, after 1757.

We therefore suggest that Miss Clark's application include a request that the International Commission on Zoological Nomenclature (1) place the name *Pentaceros* Schröter, 1782 (*Musei Gottwaldiani testaceorum :* 58) on the Official Index of Rejected and Invalid Generic Names in Zoology, and (2) place the work Schröter (J. S.), 1782, *Musei Gottwaldiani testaceorum, stellarum marinarum et coralliorum quae supersunt tabulae*, on the Official Index of Rejected and Invalid Works in Zoology.

In making this suggestion, we are prompted by the necessity of determining whether the generic name *Pentaceros* Cuvier *in* Cuvier and Valenciennes, 1829 (Pisces) is valid.

By H. Barraclough Fell (*Victoria University of Wellington, New Zealand*)

The application which was prepared in consultation with European authorities on the Asteroidea, and has as its aim the stabilization of the existing nomenclature as customarily employed, would appear to achieve this aim. I have examined the figures referred to in a copy of Johannis Henrici Linckii : De Stellis Marinis, Lipsiae, 1733, and the reference made to them in the British Museum offset printing of the Systema Naturae, ed. 10. In my opinion the application is deserving of the strongest possible support.

AN ALTERNATIVE PROPOSAL CONCERNING *ARIZONA ELEGANS* KENNICOTT. Z.N.(S.) 1454

By L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The conclusions reached by Drs. Williams and Smith (1962, *Bull zool. Nomencl.*. **19**(5) : 298–300) in the present very complicated case are not fully shared by me. My reasons are the following : As Boulenger (1894, *Cat. Snakes Brit. Mus.* **2** : 66) in proposing his *Coluber arizonae* did not state it to be a replacement name it cannot, on technical grounds, be considered as such ; while Boulenger furthermore did not indicate a holotype for his new species all the specimens referred to by him are syntypes. Judging by the account given by Drs. Williams and Smith the first author to select a lectotype from among these syntypes was Klauber (1946, *Trans. San Diego Soc. nat. Hist.* **10**(17) : 321–322), who so selected the specimen from Duval County in the British Museum. This action definitely settles the identity of *Coluber arizonae* Boulenger. Boulenger's (1895, *Zool. Rec.* **1894**(4) : 28) later citation of " *Coluber arizonae* n.n. for *Arizona elegans* " has no influence on the status of the name *arizonae*, as technically Boulenger does not propose a new name here but only used an already published name as a replacement name for *Arizona elegans* Kennicott ; under the Code this action even is not a legal restriction of the type-specimen.

(2) Though Boulenger's (1895) action does not influence the status of the name *arizonae*, it is of decisive importance for that of the name *elegans* Kennicott, which is clearly rejected here as a homonym by Boulenger and thus under the Rules cannot be used again. In order to save Kennicott's name the plenary powers have to be used.

In para. 14(a) of their application Drs. Williams and Smith ask for the " use of the plenary powers to validate the specific name *elegans* ", without indicating how this should be done. I do not think that the Commission can possibly comply with the request as it stands. It, namely, cannot just declare a name valid. The validity of a name, namely, depends not only on nomenclatural, but also on taxonomic grounds. Zoologists with different taxonomic viewpoints may have different opinions about whether a name is or is not valid. A decision of the Commission validating a name would be declaring a name to have priority over any name with which it ever might be synonymized or homonymized, an action, so far as I know, never undertaken by the Commission ; this action could only be taken once by the Commission without transgressing on the field of taxonomy, because in declaring a second name to be " valid " the Commission would make it impossible for taxonomists to synonymize the two species to which these names are given.

What Drs. Williams and Smith should have done is to ask the Commission to take under its plenary powers the necessary steps to remove the obstacles which in their opinion make the name *elegans* Kennicott invalid and to specify each of these steps invidivually. Such a step could be a declaration by the Commission that the name *elegans* Kennicott is not to be considered a rejected homonym on account of Boulenger's (1896) action.

(3) If the above request is granted by the Commission and so the name *elegans* Kennicott is made the valid name for the species for which it was proposed, the names *arizonae* and *elegans* become available for the two subspecies of *Arizona elegans* mentioned by Drs. Williams and Smith. The name *arenicola* Dixon, 1960, falls as an objective synonym of *arizonae* and should be put on the Official Index.

(4) To obtain the end sought by Drs. Williams and Smith the Commission should be requested to take the following actions :

(a) to use its plenary powers and declare that the name *elegans* Kennicott, 1859, as published in the binomen *Arizona elegans* and defined by the lectotype U.S. Nat. Mus. No. 1722, designated by Blanchard, 1924 (*Occ. Papers*

Mus. Zool. Univ. Michigan **150** : 4), is to be considered as not having been rejected as a secondary homonym in any paper published prior to the proposed ruling ;

(b) to place the generic name *Arizona* Kennicott, 1859 (gender : feminine) type-species, by monotypy *Arizona elegans* Kennicott, 1859, on the Official List of Generic Names in Zoology ;

(c) to place on the Official List of Specific Names in Zoology the following names :
  - (i) *elegans* Shaw, 1802, as published in the combination *Coluber elegans*, as defined by its lectotype (Brit. Mus. (Nat. Hist.) No. 1946. 1.8.8), selected by Williams and Smith, 1962 (*Bull. zool. Nomencl.* **19** : 300) ;
  - (ii) *elegans* Kennicott, 1859, published in the combination *Arizona elegans* and validated under (4)(a) above ;
  - (iii) *arizonae* Boulenger, 1894, as published in the combination *Coluber arizonae*, and defined by its lectotype (Brit. Mus. (Nat. Hist. No. 90.7.30.40) selected by Klauber, 1946 (*Trans. San Diego Soc. nat. Hist.* **10**(17) : 322) ;

(d) place on the Official Index of Invalid and Rejected Specific Names in Zoology the name *arenicola* Dixon, 1960, as published in the combination *Arizona elegans arenicola* (an objective junior synonym of *arizonae* Boulenger, 1894, a name placed on the Official List in para. (c)(i) above).

It would be possible to save the name *arenicola* by suppressing the name *arizonae* under the plenary powers for the purposes of the Law of Priority, but not for those of Homonymy, in addition to the actions requested above under (a), (b), (c)(i)(ii), while then at the same time the name *arizonae* would have to be placed on the Official Index and *arenicola* on the Official List. It does not seem justified, however, to involve the plenary powers to this end.

REVISION OF THE PETITION FOR VALIDATION OF *ARIZONA ELEGANS* KENNICOTT Z.N.(S.) 1454

By Kenneth L. Williams and Hobart M. Smith (*Dept. Zoology, University of Illinois, Urbana*)

The alternative proposal submitted by Dr. Holthuis contains a number of points with which agreement is a matter of course. Certainly it must be agreed that " validity " is a property unique to but one name for any species, whereas " availability " is a property common to an unlimited number of names applicable to any one species. These are concepts made clear by the 1961 Code and certainly accepted by us as attested by several articles by one of us on precisely this point (*e.g.*, 1962, *Syst. Zool.* **11** : 139–142, fig. 1).

It was our understanding that placement of any name on the Official List *ipso facto* renders it " valid ", in the sense agreed to above, because the first (1958) instalment of the Official List specifically states (p. xii) that " a specific name once stabilized in this way is to be used in preference to any other name for the species concerned and . . . is not to be replaced by any other [trivial] name, even if later it is found either (1) that the [trivial] name in question is not an available name, or (2) that it is not the oldest available [trivial] name for the species in question, unless and until . . . the Commission shall so direct ". Surely, then, placement of the name *Arizona elegans* on the Official List would constitute " validation " of the name ; and such inclusion would require exercise of the plenary powers because, as all agree, that name would otherwise be regarded as unavailable through permanent suppression as a secondary homonym. However, if the point remains debateable we are quite willing to rephrase our request, paragraph 14a, by simply asking that *Arizona elegans* be placed on the Official List. It does not seem to us *essential* to such action that the Commission first determine and eliminate by use of the plenary powers any and all obstacles to both availability and validity. The Commission obviously has the power to make nomenclatural decisions involving zoological considerations as well as strictly nomenclatural matters. If it prefers to operate by means of elimination of all known obstacles prior to inclusion of a name on the Official Lists, then obviously this end would be achieved by ratification of Holthuis's proposals 4(a) and 4(a)(ii), to which we agree if this is indeed the desired procedure.

In only one significant respect do we adhere to a view different from that of Dr. Holthuis : *Coluber arizonae* is, as we see it, a substitute name as of its original proposal by Boulenger in 1894. Obviously it is not a new name at all as of its use in 1895 in the *Zoological Record* for 1894 ; that use of 1895 was cited in our petition only to give added support, from the author himself, for the understanding that in 1894 the name was proposed as a substitute name and not as a name for a new species. It is true that Boulenger in 1894 did not *then* state that the name was a substitute name, but all we now need to determine is his intent at that time. We have his own word for his intent, to propose a substitute name, given by a year later, and a great deal of corroborative circumstantial evidence is at hand. It is unrealistic to insist that all substitute names be explicitly so designated in taxonomic work of that period ; virtually no work did so, but instead *implied* substitution by inclusion of the pertinent synonymy. Boulenger did indeed include a sufficient synonymy to enable any subsequent student to determine why the new name was proposed. We cannot agree that the new name should be regarded as a " new species name " as opposed to substitute name. By our view *arizonae* is not available if, as we ask, *Arizona elegans* is placed on the Official List, and it therefore need not be dealt with further at all (as, for example, by placing it on the Official Index).

Even if *arizonae* were to be regarded by the Commission as a " new species name " (as opposed to a substitute name), we would hold its use in the sense of the limitation initiated by Klauber, 1946, as highly undesirable since (a) the name has been used as valid only once, (b) a better-known alternative (*arenicola*) is in current use, and (c) the name is inappropriate since it, as now limited, would apply to a Texas race and not to any race occurring in Arizona. Appropriateness does not of itself carry any weight but it is not insignificant in combination with the other two factors specified.

We therefore request the Commission to act upon these alternatives :

a. If *Coluber arizonae* Boulenger, 1894, is held to be a substitute name, that Dr. Holthuis's proposals 4(a), (b), (c)(i) and (ii) be combined with Williams and Smith's proposals 14(c), (d), and (f) ; but that

b. If *Coluber arizonae* Boulenger, 1894, is held to be a " new species name ", that Dr. Holthuis's proposals 4(a), (b), (c)(i), and (ii) be combined with Williams and Smith's proposal 14(f) and with the following :

(1) suppression of the name *arizonae* Boulenger, 1894, as proposed in the combination *Coluber arizonae*, for purposes of the Law of Priority but not for those of the law of Homonymy ; and

(2) addition of the name *arizonae* Boulenger, 1894, as above, to the Official Index of Invalid and Rejected Specific Names in Zoology.

OPINION 666

CLATHURELLA CARPENTER, 1857 (GASTROPODA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Clathurella* Carpenter, 1857, made prior to the present Ruling are hereby set aside, and the nominal species *Clavatula rava* Hinds, 1843, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Clathurella* Carpenter, 1857 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Clavatula rava* Hinds, 1843 (Name No. 1540) ;

(b) *Pleurotomoides* Bronn, 1831 (gender : masculine), type-species, through *Defrancia* Millet, 1826, by designation by Dall, 1908, *Defrancia pagoda* Millet, 1826 (Name No. 1541).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *rava* Hinds, 1843, as published in the binomen *Clavatula rava* (type-species of *Clathurella* Carpenter, 1857) (Name No. 1916) ;

(b) *pagoda* Millet, 1826, as published in the binomen *Defrancia pagoda* (type-species of *Pleurotomoides* Bronn, 1831) (Name No. 1917).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Defrancia* Millet, 1826 (a junior homonym of *Defrancia* Bronn, 1825) (Name No. 1631) ;

(b) *Defrancia* Möller, 1842 (a junior homonym of *Defrancia* Bronn, 1825) (Name No. 1632) ;

(c) *Pelagia* Lamouroux, 1821 (a junior homonym of *Pelagia* Peron & Lesueur, 1810) (Name No. 1633) ;

(d) *Pelagia* Quoy & Gaimard, (1833) (a junior homonym of *Pelagia* Peron & Lesueur, 1810) (Name No. 1634) ;

(e) *Pelagia* Gumppenberg, 1890 (a junior homonym of *Pelagia* Peron & Lesueur, 1810) (Name No. 1635).

HISTORY OF THE CASE (Z.N.(S.) 518)

The present case was submitted by Mr. Joshua L. Baily, Jr., in March 1951 and revised by him in Febuary 1957. It was sent to the printer on 17 January 1961 and published on 11 August 1961 in *Bull. zool. Nomencl.* **18** : 270–272. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two malacological serials.

The application was supported by Dr. Myra Keen who pointed out, however, that *Philbertia* Monterosato, 1884, was only a subjective junior synonym of *Clathurella* Carpenter, 1857, and should therefore not be placed on the Official Index as had been proposed.

DECISION OF THE COMMISSION

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)23 either for or against the proposals set out, excepting proposal (4)(c), in *Bull. zool. Nomencl.* **18** : 272. At the close of the prescribed Voting Period on 31 August 1962, the state of the voting was as follows :—

Affirmative Votes—twenty-three (23), received in the following order : Hering, China, Boschma, Holthuis, Mayr,* Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Brinck, Alvarado, Key, Uchida, Borchsenius, Obruchev, Tortonese, Jaczewski, Hemming, Binder, Kühnelt.

Negative Votes—one (1) : Mertens.

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—two (2) : Evans, Poll.

Commissioners Bradley and Miller returned late affirmative votes.

The following comments were returned by Commissioners with their Voting Papers :

Dr. L. B. Holthuis (7.vi.62). *Clathurella* Carpenter being clearly a replacement name for *Defrancia* Millet, Dall's (1908) type selection is valid, that of Cossman being invalid. The plenary powers thus are necessary for the type designation favoured by Mr. Baily.

Dr. Henning Lemche (14.vi.62). If Carpenter (1857) is not to be completely prevented from working taxonomically with his genus *Clathurella* (=*Defrancia* Millet), he must be given an opportunity to both (1) make the necessary nomenclatorial statements, and (2) thereafter include anything else by taxonomic actions. So, *pagoda* is the type under the Rules. But, circumstances are apparently such that it is better to use the plenary powers to vary the type.

Dr. K. H. L. Key (23.vii.62). The applicant is wrong in stating (para. 9) that both courses are consistent with the rules and that Carpenter's " intention " must be decisive. The case clearly comes under Art. 67 i, and the designation of *rava* as type-species is clearly invalid under Art. 68 i (i). Carpenter's intention is irrelevant, even if it could be determined.

Prof. R. Mertens (27.viii.62). For the following reasons I vote against the proposal :

(1) Carpenter, 1857, by a footnote expressly stated that the new name *Clathurella* was intended as a replacement name for *Defrancia* Millet, 1826 (non Bronn 1825). The citation of " Clavatula, pars, Hinds . . . " may be regarded as a somewhat obscure indication of the nominal species *Clavatula rava*, but *rava* cannot be interpreted as an " originally included species " in the sense of Article 69a(i) of the Code, and therefore it cannot be the type-species of the genus in question.

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*Prof. Mayr asked that his vote be counted with the majority.

(2) In conformity with the provisions of the Code the species *Defrancia pagoda* (type-species of *Defrancia*) was regarded by Dall (1918) as type-species of *Clathurella* and Wenz did the same in his important textbook (1934, *Handb. Paläozool.* **6**(1) **:** 1457).

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Clathurella Carpenter, 1857, *Cat. Coll. Mazatlan Shells B.M.* : 399
Defrancia Millet, 1826, *Mém. linn. Soc. Paris* **5 :** 437
Defrancia Möller, 1842, *Ind. Moll. Groenl.* : 12
pagoda, *Defrancia*, Millet, 1826, *Mém. linn. Soc. Paris* **5 :** 439, pl. 9, figs. 1a, b
Pleurotomoides Bronn, 1831, *Ergeb. nat. Reisen* **2** : 555
Pelagia Gumppenberg, 1890, *N. Acta Acad. Leop. Carol.* **54 :** 483 ; **58 :** 237
Pelagia Lamouroux, 1821, *Exp. Méth. polyp.* : 78
Pelagia Quoy & Gaimard, (1833), *in* d'Urville, *Voy. "Astrolabe"*, Zool. **2 :** 292
rava, *Clavatula*, Hinds, 1843, *Proc. zool. Soc. Lond.* : 39

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling :

For *Pleurotomoides* Bronn, 1831, through *Defrancia* Millet, 1826 : Dall, 1908, *Bull. Mus. comp. Zool.*, Harvard **43 :** 260

CERTIFICATE

I certify that the votes cast on Voting Paper (62)23 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 666.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
16 *October* 1962

OPINION 667

LYGUS HAHN, 1833 (INSECTA, HEMIPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Lygus* Hahn, 1833, made prior to the present Ruling are hereby set aside and the nominal species *Cimex pratensis* Linnaeus, 1758, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Lygus* Hahn, 1833 (gender: masculine), type-species, by designation under the plenary powers in (1) above, *Cimex pratensis* Linnaeus, 1758 (Name No. 1542);

(b) *Apolygus* China, 1941 (gender: masculine), type-species, by original designation, *Phytocoris limbatus* Fallén, 1829 (Name No. 1543);

(c) *Lygocoris* Reuter, 1875 (gender: masculine), type-species, by designation by Kirkaldy, 1906, *Cimex pabulinus* Linnaeus, 1761 (Name No. 1544).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *pratensis* Linnaeus, 1758, as published in the binomen *Cimex pratensis* (type-species of *Lygus* Hahn, 1833) (Name No. 1918);

(b) *limbatus* Fallén, 1829, as published in the binomen *Phytocoris limbatus* (type-species of *Apolygus* China, 1941) (Name No. 1919);

(c) *pabulinus* Linnaeus, 1761, as published in the binomen *Cimex pabulinus* (type-species of *Lygocoris* Reuter, 1875) (Name No. 1920).

(4) The generic name *Exolygus* Wagner, 1949 (a junior objective synonym of *Lygus* Hahn, 1833) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1636.

HISTORY OF THE CASE (Z.N.(S.) 1062)

The present case was submitted to the office of the Commission by Dr. José C. Carvalho, Dr. H. H. Knight and Dr. Robert L. Usinger in January 1956. The application was sent to the printer on 17 January 1961 and published on 11 August 1961 in *Bull. zool. Nomencl.* **18** : 281–284. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Mr. Denis Leston (*Bull. zool. Nomencl.* **19** : 96) and by Dr. T. Jaczewski.

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)26 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 284. At the close of the prescribed Voting

Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty-five (25), received in the following order : China, Holthuis, Obruchev, Riley, Jaczewski, Evans, Mayr, Key, Uchida, Binder, do Amaral, Miller, Boschma, Lemche, Vokes, Tortonese, Stoll, Hering, Brinck, Borchsenius, Kühnelt, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—none (0).

On Leave of Absence—three (3) : Bradley, Munroe, Prantl.

Voting Papers not returned—one (1) : Hemming.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Lists and Index by the Ruling given in the present Opinion :

Apolygus China, 1941, *Proc. R. ent. Soc. Lond.* (B) **10** : 60
Exolygus Wagner, 1949, *Verh. naturwiss. Heimatf. Hamburg* **30** : 26–40
limbatus, *Phytocoris*, Fallén, 1829, *Hemipt. svec.* : 92
Lygocoris Reuter, 1875, *Bihang. K. svensk. Vetensk.-Akad. Handl.* **3**(1) : 16–18
Lygus Hahn, 1833, *Wanzen. Ins.* **1** : 147–148
pabulinus, *Cimex*, Linnaeus, 1761, *Fauna svec.* (ed. 2) : 253
pratensis, *Cimex*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 448

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling :

For *Lygocoris* Reuter, 1875 : Kirkaldy, 1906, *Trans. amer. ent. Soc.* **32** : 139

CERTIFICATE

I certify that the votes cast on Voting Paper (62)26 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 667.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
6 *November* 1962

OPINION 668

TRITONIA CUVIER, [1797] (GASTROPODA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Tritonia* Cuvier, [1797], made prior to the present Ruling are hereby set aside and the nominal species *Tritonia hombergii* Cuvier, 1803, is hereby designated to be the type-species of that genus.

(2) The generic name *Tritonia*, Cuvier, [1797] (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Tritonia hombergii* Cuvier, 1803, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1545.

(3) The specific name *hombergii* Cuvier, 1803, as published in the binomen *Tritonia hombergii* (type-species of *Tritonia* Cuvier, [1797]) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1921.

(4) The generic name *Necromantes* Gistl, [1847] (a junior objective synonym of *Tritonia* Cuvier, [1797]) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1637.

(5) The family-group name TRITONIIDAE H. & A. Adams, 1858 (type-genus *Tritonia* Cuvier, [1797]) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 346.

(6) The family-group name TRITONIADAE Bergh, 1884 (type-genus *Tritonia* Cuvier, [1797]) (an incorrect spelling for TRITONIIDAE H. & A. Adams, 1858) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name No. 368.

HISTORY OF THE CASE (Z.N.(S.) 1215)

The present case was submitted to the office of the Commission by Dr. Henning Lemche in April 1957. Dr. Lemche's application was sent to the printer on 17 January 1961 and published on 11 August 1961 in *Bull. zool. Nomencl.* **18** : 285–286. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two specialist serials. No objection was received.

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)27 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 286. At the close of the prescribed Voting Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order : China, Holthuis, Obruchev, Riley, Jaczewski, Evans, Mayr, Uchida, Binder, do Amaral, Miller, Boschma, Lemche, Vokes, Tortonese, Stoll, Hering, Brinck, Borchsenius, Kühnelt, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—one (1): Key.

On Leave of Absence—three (3): Bradley, Munroe, Prantl.

Voting Papers not returned—one (1): Hemming.

In returning his negative vote Dr. K. H. L. Key wrote : " I vote this way because the applicant admits that as long as 40 years ago ' most ' authors abandoned the usage he now wishes to reinstate. As regards the family-group name TRITONIIDAE, we are not told whether this is still used, or used exclusively, or whether a name based on another genus is in use."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

hombergii, *Tritonia*, Cuvier, 1803, *Ann. Mus. Hist. nat.*, Paris **1** : 483
Necromantes Gistl, [1847], *Nat. Thierr.* : XI
Tritonia Cuvier, [1797], *Tabl. élém. Hist. nat. Anim.* : 387
TRITONIADAE Bergh, 1884, *Semper's Reis. Philipp.* II, *Malac. Unters.* III(15) : 698
TRITONIIDAE H. & A. Adams, 1858, *Gen. rec. Moll.* **2** : 62

CERTIFICATE

I certify that the votes cast on Voting Paper (62)27 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 668.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
7 *November* 1962

OPINION 669

MYODOCHA LATREILLE, 1807 (INSECTA, HEMIPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Myodocha* Latreille, 1807, made prior to the present Ruling are hereby set aside and the nominal species *Myodochus serripes* Olivier, 1811, is hereby designated to be the type-species of that genus.

(2) The generic name *Myodocha* Latreille, 1807 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Myodochus serripes* Olivier, 1811, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1546.

(3) The specific name *serripes* Olivier, 1811, as published in the binomen *Myodochus serripes* (type-species of *Myodocha* Latreille, 1807) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1922.

(4) The generic name *Myodochus* Olivier, 1811 (an unjustified emendation of *Myodocha* Latreille, 1807) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1638.

(5) The family-group name MYODOCHINI (correction of MYODOCHARIA) Stål, 1872 (type-genus *Myodocha* Latreille, 1807) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 347.

HISTORY OF THE CASE (Z.N.(S.) 1431)

The present case was first submitted to the Office of the Commission by Drs. James A. Slater, Harry G. Barber and Reece I. Sailer in May 1959, but it was discovered that the application then submitted was based on inaccurate information. A revised application was sent to the printer on 17 January 1961 and was published on 11 August 1961 in *Bull. zool. Nomencl.* **18** : 287–288. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. T. Jaczewski.

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)28 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 288. At the close of the prescribed Voting Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty-five (25), received in the following order : China, Holthuis, Obruchev, Riley, Jaczewski, Evans, Mayr, Key, Uchida, Binder, do Amaral, Miller, Boschma, Lemche, Vokes, Tortonese, Stoll, Hering, Brinck, Borchsenius, Kühnelt, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—none (0).

On Leave of Absence—three (3): Bradley, Munroe, Prantl.

Voting Papers not returned—one (1): Hemming.

Dr. Key in returning his Voting Paper made the following comment: " The applicants are in error in stating (p. 287, para. 5) that *Myodocha* appears not to have a valid type-species, for Kirkaldy (1900) in fact designated *Cimex tipuloides* as type-species under Art. 69a(iii)."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion:

Myodocha Latreille, 1807, *Gen. Crust. Ins.* **3** : 126
MYODOCHINI Stål, 1872, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **29**(7) : 51
Myodochus Olivier, 1811, *Ency. méth.* **8** (Ins.) : 104, 106
serripes, *Myodochus*, Olivier, 1811, *Ency. méth.* **8** (Ins.) : 106

CERTIFICATE

I certify that the votes cast on Voting Paper (62)28 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 669.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
7 *November* 1962

OPINION 670

DENDROCTONUS ERICHSON, 1836 (INSECTA, COLEOPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS WITH ADDITION OF *TOMICUS* LATREILLE, [1802–1803] TO THE OFFICIAL LIST

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Dendroctonus* Erichson, 1836, made prior to the present Ruling are hereby set aside and the nominal species *Bostrichus micans* Kugelmann, 1794, is hereby designated to be the type-species of that genus.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

- (a) *Dendroctonus* Erichson, 1836 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Bostrichus micans* Kugelmann, 1794 (Name No. 1547) ;
- (b) *Tomicus* Latreille, [1802–1803] (gender : masculine) type-species, by monotypy, *Dermestes piniperda* Linnaeus, 1758 (Name No. 1548).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

- (a) *micans* Kugelmann, 1794, as published in the binomen *Bostrichus micans* (type-species of *Dendroctonus* Erichson, 1836) (Name No. 1923) ;
- (b) *piniperda* Linnaeus, 1758, as published in the binomen *Dermestes piniperda* (type-species of *Tomicus* Latreille, [1802–1803]) (Name No. 1924).

(4) The following generic names are hereby placed on the Official List of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

- (a) *Blastophagus* Eichhoff, 1864, a junior objective synonym of *Tomicus* Latreille, [1802–1803] (Name No. 1639) ;
- (b) *Myelophilus* Eichhoff, 1878, a junior objective synonym of *Tomicus* Latreille, [1802–1803] (Name No. 1640) ;
- (c) *Blastophagus* Gravenhorst, 1827, a nomen nudum (Name No. 1641).

HISTORY OF THE CASE (Z.N.(S.) 467)

The present case was first submitted to the Office of the Commission by Prof. H. Boschma on behalf of the Committee on Nomenclature of the Netherlands Entomological Society. The information, provided by the late Dr. K. W. Dammerman, was, however, incomplete, and was later discovered to be incorrect in one aspect. A full account of the history of this application was given by Dr. W. E. China in his report published on 5 December 1960 in *Bull. zool. Nomencl.* **18** : 69–72. Dr. China's proposals were supported by Dr. J. B. Wiebes and Dr. F. G. Browne.

On 13 February 1961, Dr. Stephen L. Wood submitted to the Commission a counter-proposal involving the generic names *Tomicus* and *Dendroctonus*, not taken into account in the previous application. Dr. Wood's application was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 319. Public Notice of the possible use of the plenary powers in the present case was given in both the above-mentioned parts of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. Upon reading Dr. Wood's application Dr. China, Dr. Wiebes and Dr. Browne withdrew their support of the original proposals in favour of those of Dr. Wood (*Bull. zool. Nomencl.* **19** : 38). Dr. Oswald Peck also commented upon the case.

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)29 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 321. At the close of the prescribed Voting Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : China, Holthuis, Obruchev, Riley, Evans, Mayr, Key, Uchida, Binder, Miller, Boschma, Jaczewski, Lemche, Vokes, Tortonese, Stoll, Hering, Borchsenius, Brinck, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—two (2) : do Amaral, Kühnelt.

On Leave of Absence—three (3) : Bradley, Munroe, Prantl.

Voting Papers not returned—one (1) : Hemming.

In returning his Voting Paper Prof. W. Kühnelt made the following comment : " I do not see why the generic name *Myelophilus* Eichhoff, 1878, which is in current use, especially in forest entomology, should be replaced by *Tomicus*, the status of which is rather dubious since it has been used as a junior synonym of *Ips* by many authors."

ORIGINAL REFERENCES

The following are the original references for the names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

Blastophagus Eichhoff, 1864, *Berlin ent. Z.* **8** : 25

Blastophagus Gravenhorst, 1827, *Uebers Arb. Veränd. schles. Ges. vaterländ Cultur*, Breslau, 1826 : 23

Dendroctonus Erichson, 1836, *Arch. Naturgesch.* **2**(1) : 52

micans, *Bostrichus*, Kugelmann, 1794, *Mag. Lieb. Ent.* [Schneider's] **5** : 523

Myelophilus Eichhoff, 1878, *Stettin. Ent. Ztg.* **39** : 400

piniperda, *Dermestes*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 355

Tomicus Latreille, [1802–1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 203

CERTIFICATE

I certify that the votes cast on Voting Paper (62)29 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted

under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 670.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
12 *November* 1962

REPLY TO THE COMMENT BY H. LEMCHE AND R. H. PARKER ON THE PROPOSED STABILISATION OF THE GENERIC NAME *GARI* SCHUMACHER, 1817. Z.N.(S.) 1461

By L. R. Cox (*British Museum* (*Natural History*), *London*)

It is evident from a remark in their " Comment " (1962, *Bull. zool. Nomencl.* **19** : 376) that Drs. Lemche and Parker have misunderstood my reference to a " lectotype " in a letter to them. The reason must be that they have overlooked my supplementary note (1961, *ibid.* **18** : 226) to the original petition. In that note I designated, as lectotype of the nominal species *Gari vulgaris* Schumacher, the original of Chemnitz's pl. 10, fig. 92. This action was necessary because, although the inclusion of *Tellina gari* Linnaeus in Schumacher's synonymy of *Gari vulgaris* rendered the latter the type species of *Gari*, this did not mean that the type specimen of *Tellina gari* became that of *Gari vulgaris*. I endeavoured, however, to choose as lectotype of *Gari vulgaris* a specimen belonging to the same zoological species as my proposed neotype of *Tellina gari*.

My decision that Chemnitz's pl. 10, fig. 92, could be taken to represent the typical *Tellina gari* was largely based on the fact that, as explained by Chemnitz (1782) in his text, the figured specimen was supplied by Spengler from his own collection as an authentic example of the Linnean species. Drs. Lemche and Parker argue that 16 years later (1798) Spengler excluded fig. 92 from further consideration as the *forma typica* of the species by referring to it as the " artsforandring " *b*. As I interpret Spengler's meaning, however, Chemnitz's fig. 93, cited on the previous page, represented an " artsforandring " *a*, and I suggest that " artsforandring " merely meant " variety ". Thus *a* and *b* were regarded as two varieties of *Tellina gari* and neither was considered the more typical. It would in any case be expected that in 1782, only four years after the death of Linnaeus, Spengler would have remembered more about the identity of that worker's species than 16 years later.

Drs. Lemche and Parker suggest that Schumacher's figured specimen of *Gari vulgaris* was the actual one represented in Chemnitz's fig. 93, which they re-figure as their proposed neotype of *Tellina gari*. As the hinge teeth represented in Schumacher's figures are about three times the size of those of Chemnitz's specimen or any of the examples of its species (*Gari amethystus* (Wood)) that I have examined, I am not convinced by this suggestion.

OPINION 671

LEBBEUS WHITE, 1847, AND *EUALUS* THALLWITZ, 1892 (CRUSTACEA, DECAPODA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers:

(a) the generic name *Lebbeus* White, 1847, published in synonymy, is hereby validated;

(b) all designations of type-species for the nominal genus *Hetairus* Bate, 1888, made prior to the present Ruling are hereby set aside and the nominal species *Alpheus polaris* Sabine, 1824, is hereby designated to be the type-species of that genus;

(c) the following names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(i) the generic name *Vianellia* Nardo, 1847;

(ii) the specific name *dorsioculata* Nardo, 1847, as published in the binomen *Vianellia dorsioculata*.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Eualus* Thallwitz, 1892 (gender: masculine), type-species, by monotypy, *Eualus obses* Thallwitz, 1892 (Name No. 1549);

(b) *Lebbeus* White, 1847 (gender: masculine), type-species, by monotypy, *Alpheus polaris* Sabine, 1824 (Name No. 1550).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *gaimardii* H. Milne Edwards, 1837, as published in the binomen *Hippolyte gaimardii* (Name No. 1925);

(b) *polaris* Sabine, 1824, as published in the binomen *Alpheus polaris* (type-species of *Lebbeus* White, 1847) (Name No. 1926).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Hetairus* Bate, 1888, a junior objective synonym of *Lebbeus* White, 1847 (Name No. 1642);

(b) *Vianellia* Nardo, 1847, as suppressed under the plenary powers in (1)(c) above (Name No. 1643).

(5) The following specific names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *dorsioculata* Nardo, 1847, as published in the binomen *Vianellia dorsioculata* (as suppressed under the plenary powers in (1)(c) above) (Name No. 760);

(b) *orthorhynchus* White, 1847, as published in the binomen *Lebbeus orthorhynchus* (a junior objective synonym of *polaris, Alpheus*, Sabine, 1824) (Name No. 761).

HISTORY OF THE CASE (Z.N.(S.) 618)

The present case was first submitted to the office of the Commission by Dr. L. B. Holthuis in September 1951. A revised application was sent to the printer on 20 June 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 322–325. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 26 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)30 either for or against the proposals published in *Bull. zool. Nomencl.* **18** : 324–325. At the close of the prescribed Voting Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty-five (25), received in the following order : China, Holthuis, Obruchev, Riley, Jaczewski, Evans, Mayr, Key, Uchida, Binder, do Amaral, Miller, Boschma, Lemche, Vokes, Tortonese, Stoll, Hering, Borchsenius, Brinck, Kühnelt, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—none (0).

On Leave of Absence—three (3) : Bradley, Munroe, Prantl.

Voting Papers not returned—one (1) : Hemming.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion :

dorsioculata, *Vianellia*, Nardo, 1847, *Sinon. modern. Spec. Lag. Golfo Veneto* : 8
Eualus Thallwitz, 1892, *Abh. Ber. zool.-anthrop. Mus. Dresden* **1890/1891** (3) : 23, 50
Hetairus Bate, 1888, *Rep. Voy. " Challenger "*, Zool. **24** : 577, 610
gaimardii, *Hippolyte*, H. Milne Edwards, 1837, Roret's Suite à Buffon, *Hist. nat. Crust.* **2** : 378
Lebbeus White, 1847, *List Crust. Brit. Mus.* : 76, 135
orthorhynchus, *Lebbeus*, White, 1847, *List Crust. Brit. Mus.* : 76, 135
polaris, *Alpheus*, Sabine, 1824, *Suppl. App. Parry's Voy. N.W. Passage* : ccxxxviii
Vianellia Nardo, 1847, *Sinon. modern. Spec. Lag. Golfo Veneto* : 8

CERTIFICATE

I certify that the votes cast on Voting Paper (62)30 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 671.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
12 *November* 1962

ATHERINA JAPONICA HOUTTUYN, 1782: PROPOSED SUPPRESSION AS BEING A *NOMEN DUBIUM* (CLASS PISCES). Z.N.(S.) 569

By P. J. P. Whitehead (*British Museum (Natural History), London*)

Opinion 93 (*Smithson. Inst. Publ.* 2873, October 1926, **73**(4)) states that the genotype of the anchovy genus *Stolephorus* Lacépède, 1803 (*Hist. Nat. Poiss.* **5** : 381) should be *Stolephorus commersonianus** Lacépède (*op. et loc. cit.*), and therefore, by implication, not the second of the two species included by Lacépède in *Stolephorus*, *Atherina japonica* Houttuyn, 1782 (*Verh. Holland. Maatsch. Haarlem*, **20** : 340). This over-ruled an earlier designation in favour of the latter species by Jordan & Gilbert, 1883 (*Bull. U.S. nat. Mus.* No. 16 : 272). The identity of *Atherina japonica* and its suitability for inclusion in the genus *Stolephorus* were not of course dealt with in Opinion 93, and it is these which are now in question.

2. Sections of the nomenclature of both the round herrings (Family Dussumieriidae) and the anchovies (Family Engraulidae) have become confused partly because authors have ignored the consequences of Opinion 93. As a result, the genus *Stolephorus* Lacépède has been applied to :

—— a dussumieriid genus for which *Spratelloides* Bleeker, 1852 (*Verh. Batav. Genootsch.* **24** : 12 and 29) is otherwise applicable.

—— an engraulid genus for which *Engraulis* Cuvier, 1817 (*Règne anim.* **2** : 174) is otherwise applicable.

—— and finally, and in the correct sense of Opinion 93, a second engraulid genus of which *Anchoviella* Fowler, 1911 (*Proc. Acad. nat. Sci. Philad.* : 211) is a synonym if restricted solely to Indo-Pacific species (as in Fowler, 1941, *Bull. U.S. nat. Mus.* No. 100 : 696).

3. The nomenclature of the round herrings and the anchovies has also become confused owing to the various interpretations placed on *Atherina japonica* Houttuyn. As a result, *Atherina japonica* Houttuyn, 1782, has been cited as the earliest name for :

—— a dussumieriid species for which priority otherwise rests with *Clupea gracilis* Schlegel, 1846 (*Faun. Japon. Poiss.* pts. 10–14 : 238, pl. 108, fig. 2——type-locality, southeast coasts of Japan).

—— an engraulid species of the group which lack pre-pelvic abdominal scutes and for which priority otherwise rests with *Engraulis japonicus* Schlegel, 1846 (*Faun. Japon. Poiss.* pts. 10–14: 239, pl. 108, fig. 3——type-locality, southwest Japan).

—— and finally an engraulid species of the group which possess pre-pelvic scutes for which priority otherwise rests with *Stolephorus commersonii*

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* The International Commission for Zoological Nomenclature approved by a majority vote the substitution of *commersonii* for the cheironym *commersonianus*. However, this was never published as a Direction and the latter was never officially rejected in favour of the former. Application for this course to be adopted is made in Sections 8(2)(b) and 8(3)(b).

Lacépède, 1803 (*Hist. Nat. Poiss.* **5** : 381—no locality : based on Commerson). *Engraulis japonica* (*non* Schlegel) Günther, 1868 (*Cat. Fish. Brit. Mus.* **7** : 390) is either very closely related to or identical with this species.

4. In order to stabilize the nomenclature it is necessary not only to adhere strictly to the ruling given in Opinion 93, but also to determine whether the description given by Houttuyn (no type-specimens nor figure exist) is sufficiently precise to establish the identity of *Atherina japonica.* The salient points in this description are :

(a) Locality : Japan.
(b) Size : " Het heest vier Duim langte. Ook heb ik 'er een van drie Duimen " (length 4 inches. I have one of 3).
(c) Colour : " De overlangse breede Zilverachtige Band . . ." and " en heest een zeer breeden hoog-Zilverkleuringen Band, zig van den Kop . . . tot aan de Staart uitstrekkende" (broad silvery longitudinal stripe from the head to the tail).
(d) Dorsal rays : " vyf " (5).
(e) Pectoral rays : " veertien " (14).
(f) Pelvic rays : " agt " (8).
(g) Scales : ". . . Kop, die ongeschubd is . . ." (head scaleless).
(h) Teeth : " De Bek is ongetand " (mouth toothless).

5. Three such small fishes with broad silvery lateral stripes are known from Japanese waters :

Spratelloides gracilis (i.e. *Clupea gracilis* Schlegel)
Engraulis japonicus Schlegel
Stolephorus commersonii Lacépède

In none of these species are there only five dorsal rays (12–15, 15–16 and 14–17 respectively—see Fowler, 1941 (*op. cit.*)), and indeed such a low count is unknown in both the Dussumieriidae and the Engraulidae. *Atherina* Linnaeus, 1758 (*Syst. Nat.* 10th ed. : 315), to which Houttuyn refers in his description of *Atherina japonica*, was described as having 8, 9–12 dorsal rays ; " vyf " may thus have been an error and perhaps vyftien intended. In pelvic rays, only the dussumieriid has 8, the two anchovies only 7. Pectoral finrays are perhaps of less value, but I have made the following counts :

Spratelloides gracilis (Japan) : 12 rays (4 fishes) ; 13 (5) ; 14 (5).
Stolephorus commersonii (China) : 13 (7).
Engraulis japonicus (Japan) : 16–18 (5).

All three of these species lack scales on the head, and the presence of fine teeth in the jaws could perhaps be overlooked in small specimens of 3–4 inches in length. Placing his fish in *Atherina* Linnaeus, Houttuyn may have counted (but not recorded) six branchiostegal rays, which would accord with a dussumieriid of the genus *Spratelloides*, but not with the two anchovy genera above. Houttuyn might be expected to have recognised a close relative of the European anchovy, or at least to have found it in the *Systema Naturae*, had his fish been *Engraulis japonicus*, but this is merely conjecture.

6. The true identity of *Atherina japonica* Houttuyn is therefore a matter

of considerable uncertainty and could only be decided in an arbitrary manner. The nomenclature is certain to become further confused unless a decision is taken either to restrict the name to a single known species, or to declare it a *nomen dubium*. The latter course appears to be the better.

7. The family-group name Stolephoridae has been used for the round herrings by some authors who have ignored Opinion 93. Since *Stolephorus* is no longer a round herring genus, the group should be correctly termed the Dussumieriidae.

8. In order to avoid further confusion in the nomenclature, especially since the specific name *japonicus* is already widely used for one of the three fishes to which Houttuyn may have been referring in his description, it is proposed that the International Commission for Zoological Nomenclature should:

(1) use its plenary powers to suppress the name *Atherina japonica* Houttuyn, 1782, for the purposes of the Law of Priority but not for those of the Law of Homonymy, as a *nomen dubium*;

(2) place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology;

  (a) *japonica* Houttuyn, 1782, as published in the binomen *Atherina japonica*;

  (b) *commersonianus* Lacépède, 1803, in the binomen *Stolephorus commersonianus* (a cheironym published inadvertently in 1926 in Opinion 93 in error for *commersonii* Lacépède, 1803 in the same binomen).

(3) place the following names on the Official List of Specific Names in Zoology, each having validity notwithstanding the apparent priority of *Atherina japonica* Houttuyn, 1782:

  (a) *gracilis* Schlegel, 1846, as published in the binomen *Clupea gracilis*;

  (b) *commersonii* Lacépède, 1803, as published in the binomen *Stolephorus commersonii*, type-species of the genus *Stolephorus* Lacépède, 1803 by subsequent designation (Opinion 93);

  (c) *japonicus* Schlegel, 1846, as published in the binomen *Engraulis japonicus*.

APPENDIX

Since this proposal seeks to show the inadequacy of a description which may not be readily accessible to some workers, the complete description is cited here.

Houttuyn, M., 1782. Beschryving van eenige Japanse visschen en andere Zee-Schepzelen. *Verh. Holland. Maatsch. Haarlem* **20** : 311–350

p. 340 29. *Atherina Japonica*

Japanse Zilverstreep

De overlangse breede Zilverachtige Band, maakt het voornaamste Kenmerk uit van die Vischjes, welken in het Geslagt van *Atherina* door den Heer Linnaeus begreepen zyn. Daar is, na myne beschryving, een tweede soort bygekomen,

welke, zo min als deeze Japanse, den naam van Koorn-Air-Visch verdient.[d] Hoe het met het getal der Straalen van de Aarsvin, daar onze Ridder de Soortelyke onderscheiding van asleidt, gelegen zy, heb ik, wegens de tederheid van het Voorwerp, niet (p. 341) willen onderzoeken. Het is zeker, dat het geenzins tot de Middellandsche, to Venetie *Anguella* genaamd, noch tot de Karolinische *Menidia* van Brown, behoore. Het Lighaam is glad en roodachtig bruin, door het asgaan der Schubben, en heest een zeer breeden hoog-Zilverkleurigen Band, zig van den Kop, die ongeschubd is, tot aan de Staart uitstrekkende. In de Rugvin, tel ik *vyf*, in de Borstvinnen *veertien*, in de Buikvinnen *agt* Straalen. De bek is ongetand. Het heest vier Duim langte. Ook heb ik 'er een van drie Duimen.

(c) Zie Nat. Hist. als boven, Pl. LXIV. Fig. 8. [Refers to previous species.]

(d) De zelde, XL. Hoosdst. bladz. 259. Vid. Syst. Nat. XII. p. 519.

ENDOTHYRA BOWMANI: PROPOSED REJECTION OF APPLICATIONS OF HENBEST & ROSOVSKAYA.
Z.N.(S.) 768

By Doris E. Nodine Zeller and Edward J. Zeller (*University of Kansas, Lawrence, Kansas, U.S.A.*)

(see volume 19, pages 199–204)

We wish to express our objection to both Z.N.(S.) 768, Henbest, 1962, and the alternative proposal by Rosovskaya, 1962. We recommend strict application of the Law of Priority and we feel that none of the evidence presented in either of these proposals is adequate to warrant the use of the plenary powers of the Commission. Thus, no action of the Commission is required in this case and by refusing to act the Commission will uphold the Law of Priority and effectively reject the proposals.

1. Brown, 1843, has priority over all other references to *Endothyra*. This reference includes both an adequate description and illustration which, according to the Law of Priority, is sufficient to establish the monotypic genus based upon the species described. Brown attributed the species to Phillips for reasons which are not clearly determinable.

The description given by Phillips (1846) is much less adequate than that given by Brown (1843). It should be noted that in both the work of Brown and that of Phillips the illustrations are clearly cross sections of planispirally coiled foraminifers.

2. Brown, 1843, correctly spelled the species name as *Endothyra bowmani*; therefore, it needs no emendation.

3. Since *Endothyra bowmannii* Phillips, 1846, is a junior synonym of *E. bowmani* Brown, 1843 (or a *nomen nudum*), subsequent designation of it by Brady as the type of *Endothyra* is invalid under the Rules. Brady (1876) incorrectly selected a non-planispiral (plectogyroid) foraminifer as " *E. bowmani* Phillips " and named additional new species of this foraminifer. Brady clearly was not acquainted with the work of Brown and did not recognize the significance of the difference between planispiral and plectogyroid coiling. The fact that an error was made by Brady and perpetuated by a number of subsequent workers should not be used as an argument for requesting the use of the plenary powers of the Commission to uphold this error.

4. In our opinion, the figure and description which appear in Brown, 1834, are intelligible and can be related to fossil forms which are known to occur in rocks in England which are thought to be the stratigraphic equivalents of the Mountain Limestone of Westmoreland. Such a foraminifer has been found *in situ* in beds of equivalent age in Cumberland County which adjoins to the north Westmoreland County, the locality of the now-lost type. This form is planispiral and has the exact form of the fossil figured by Brown, 1843.

5. Brown placed *E. bowmani* in the order Cephalopoda. Other early workers including Cuvier, d'Orbigny, etc., not recognizing the true nature of

many of these microfossils, had also classed Foraminifera as cephalopods.

6. No evidence has been presented to support the contention that planispiral and " skew " coiled (plectogyroid) forms are dimorphic and therefore representative of the same genus as suggested in Z.N.(S.) 768. It is unlikely that universally accepted scientific evidence that *Endothyra* and *Plectogyra* are dimorphic can ever be provided. In a number of instances stratigraphic zones of considerable thickness are known to occur which contain exclusively one or the other of the supposed dimorphic forms. Furthermore, the genus *Endothyra* does not range into the lower Pennsylvanian while the genus *Plectogyra* is common in rocks of this age.

7. It should be noted that more and more workers, North American as well as Russian, Brazilian, and Japanese, are accepting and using the 1950 revision of *Endothyra*=*E. bowmani* Brown, 1843, and are recognizing the usefulness of the new genus *Plectogyra* of which many new species have by now been named. We are acquainted with nine major papers published since 1950 which follow this revision. In addition, the stratigraphic usefulness of the two genera is quite well proven to anyone who works with these forms.

COMMENTS ON *ENDOTHYRA BOWMANI* PHILLIPS, 1846, vs. *ENDOTHYRA BOWMANI* BROWN, 1843 (FORAMINIFERA). Z.N.(S.) 768

By Alfred R. Loeblich, Jr. (*California Research Corporation, La Habra, California*) and Helen Tappan (*University of California, Los Angeles, California*)

(see volume 19, pages 199–204)

Endothyra is like many of the classic genera of foraminifera in that the name has been widely used although both the original description and figure were much generalized and the type-specimens not preserved. Nevertheless, the binomen *Endothyra bowmani* has been recognized for more than a century, and always in the sense of Brady, except for the recent publications of Mikhailov, 1939 and Zeller, 1950. The considerable published discussion of this problem since then has shown that many paleontologists disagreed with the suggested restriction of *E. bowmani* to a planispiral and probably unrecognizable species, and the proposal of different specific (*bradyi*) or generic (*Plectogyra*) taxons for the species figured and described by Brady as *E. bowmani*. It therefore seems that in the interests of stability of nomenclature the genus and type-species should be retained in Brady's sense.

2. The counter proposal by Dr. Rosovskaya also has the aim of recognition of the generic name *Endothyra* on the basis of the specimens figured by Brady. The minor difference of her proposal concerns whether these specimens and their nominal type-species be known as *Endothyra bowmani* Phillips, as has been generally recognized, or *Endothyra bradyi* Mikhailov, 1939, a new name proposed for Brady's specimens and the conspecific ones from the Moscow Basin. There seems little evidence to substantiate suggestions that the specimens of Phillips and those of Brady were not conspecific. Brady stated (1876, p. 93) concerning Phillips's original published record, " The figure given by Professor Phillips . . . and the very partial description appended to it, form, as already stated, the first record, of any palaeontological value, of the occurrence of Foraminifera in the Carboniferous beds of England. The description amounts to very little, and the figure which represents a nearly complete horizontal section is not given with much detail. But it must be

taken for what it is worth ; and the comparison with a series of sections of determined forms, made for the purpose of distinguishing the species present in transparent slices of the harder limestone rocks, leaves little doubt that it is referable to the particular modification described by myself some years ago, under the name *Involutina lobata*. The horizontal section represented in Pl. V, fig. 4, corresponds very closely with Phillips's drawing . . . *Endothyra Bowmani* may be accepted as the best type of the genus. Not only was it first described and first named, but morphologically it occupies about a central place in the range of modifications which the series presents : it is one of the largest in point of size, as it is also one of the most widely distributed species of the entire group." Six decades ago Chapman (1902, p. 157) stated of *E. bowmani*, " This species is usually the chief foraminiferal constituent of the *Endothyra* limestones often met with in England, Wales, Scotland, Ireland, the Caucasus, and Indiana." Since the above-mentioned discussions of *Endothyra* vs. *Plectogyra* by Henbest, 1953 and St. Jean, 1957, others have also regarded the two as synonymous (Pokorný, 1958, p. 218), recognizing *Endothyra* as described by Brady. Furthermore, as noted by Brady (1876, pp. 92, 93), but apparently overlooked by later workers, there is a prior specific name available if *E. bowmani* is not to be recognized as including Brady's specimens (i.e., *Involutina lobata* Brady, 1870). The specific name *lobata* Brady, 1870, was validated by a brief published description, but the specimens were not figured until 1876, by which time Brady regarded *I. lobata* as a synonym of *E. bowmani*, a decision seldom lightly made by the author of a species. The specific name *lobata* Brady, 1870, would thus have priority over *bradyi* Mikhailov, 1939, if *bowmani* were not an available name.

3. *Endothyra bowmani* should be retained as the nominal type-species, as it has been so cited in all texts and treatises since it became so by monotypy in the original generic description. Brady so stated (see quotation above), as did Mikhailov (1939, p. 51) and the publications of Cushman (1948, p. 107), Galloway (1933, p. 157), Glaessner (1945, p. 107), S. A. Miller (1889, p. 159), Pokorný (1954, p. 143 ; 1958, p. 218), and Voloshinova and Reitlinger in Rauzer-Chernousova and Fursenko (1959, p. 194). Hence there seems no advantage to be gained by changing the terminology, since all now appear to agree that the genus be accepted in Brady's sense. We have described the majority of the families and genera of smaller foraminifera for the volume on this group of organisms of the *Treatise on Invertebrate Paleontology* (now in press). In this volume, as in others of the series, the type-species are cited and figured and the genera described to some extent on the basis of their respective type-species. Recognizing the need for stability of nomenclature in regard to *Endothyra*, we had independently reached almost identical conclusions with those of Henbest's proposal as to the most logical course to follow. In order to study foraminiferal type-species for the *Treatise on Invertebrate Paleontology*, A. R. Loeblich, Jr., then in charge of the foraminiferal collections at the U.S. National Museum, and Helen Tappan, as a Fellow of the John Simon Guggenheim Foundation, visited Great Britain in 1953. All available type collections were examined and redescribed, and many type-specimens re-illustrated for the *Treatise*. Because neither Phillips's, nor Brown's collections were in existence, the specimens of *Endothyra bowmani* described by Brady were refigured by Helen Tappan. In so doing, it was noted that all of the specimens of these Carboniferous foraminifera (as well as those of the Recent foraminifera described in Brady's famed *Challenger* Report) were very accurately figured by Brady. This is in sharp contrast to the extremely diagrammatic earlier illustrations of Phillips and Brown.

4. After Mikhailov, 1939 and Zeller, 1950 had redefined *Endothyra bowmani*, with recognition of two nominal species (and two genera by Zeller), *E. bowmani* and *E. bradyi*, some later articles followed this division, but there was little real agreement as to what each " species " included. In most instances, figures of both " species " showed the irregular early coiling regarded by Zeller as indicative of *Plectogyra*, and not the " planispiral " coiling supposedly characteristic of *E. bowmani* (e.g., Grozdilova and Lebedeva, 1954, *E. bradyi*, p. 79, pl. 12, figs. 5, 6 ; *E. bowmani*, p. 110, pl. 12, fig. 8 ; both showing early irregular or streptospiral coiling). It

therefore seems imperative to establish the species *E. bowmani* on a definite basis, if it is to be retained as type-species as in the proposal under discussion. To that end, Brady's specimen, British Museum (Natural History) P41665 (ex P35448) was redrawn, and refigured in the *Treatise on Invertebrate Paleontology*, and is therein designated as neotype of *Endothyra bowmani* Phillips. The following statements are quoted from the discussion of *Endothyra* in the *Treatise on Invertebrate Paleontology*, C, Protista 2 (Spring 1963, in press): " The confusion as to the status of *Endothyra* has been discussed in detail by SCOTT, ZELLER & ZELLER, 1947, ZELLER, 1950, HENBEST, 1953 & ST. JEAN, 1957, some authors regarding the plectogyral and planispiral modes of coiling as representing only a dimorphism found within most species. Others have regarded it variously as a generic, subfamily or family character. According to HENBEST, 1953, p. 64, about one per cent of *Endothyra baileyi* (HALL) have an early plectogyral coil and later planispiral growth, the remainder being plectogyral throughout . . . Much of the confusion is due to the loss of the type-specimens of *Endothyra*. HENBEST, 1953, stated that a petition was to be submitted to the I.C.Z.N. validating *Endothyra* Phillips, 1846 as emended by BRADY, 1876 and to suppress '*Endothyra* BROWN, 1843 '. This was again referred to by ST. JEAN, 1953, but apparently such a petition has never been formally acted upon by the I.C.Z.N. In the interests of stability of nomenclature and because of the loss of the original types of *Endothyra bowmani* PHILLIPS the specimen of BRADY in the British Museum (Natural History) (B.M.N.H. P41665, *ex* P35440) here redrawn is designated as neotype. It is from the Carboniferous, Brankamhall Quarry, Lanarkshire."

5. Therefore, we support the proposal Z.N.(S.) 768 and are in favour of the ruling that " *Endothyra bowmani* Phillips, 1846, is to be interpreted according to the description and figures published by Brady, 1876 ", and that the generic name *Endothyra* Phillips, 1846, and its type-species *E. bowmani*, by monotypy, be placed on the Official List of Generic Names in Zoology. Notice of the designation (in press) of a neotype for *E. bowmani* is herewith given to the Commission.

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By Alfred R. Loeblich, Jr. (*California Research Corporation, La Habra, California*) and Helen Tappan (*University of California, Los Angeles, California*)

The proposal of Henbest, 1962, and alternative proposal by Rosovskaya, 1962, and supporting statement by Loeblich & Tappan, 1962, have as their purpose the recognition of *Endothyra* in the sense used by Brady, 1884, which had been generally followed for about 65 years, because of the unrecognizable earlier figures given by Phillips, 1846 and Brown, 1843.

2. The more recent comments on this proposal dated 24 January 1963, by Zeller and Zeller oppose this interpretation, citing the occurrence of " a foraminifer " from beds of equivalent age, from Cumberland County, which adjoins Westmorland County (the original type-locality of the species). Not cited in these comments by Zeller and Zeller is the brief note appearing in the current issue of *Journal of Paleontology*, v. 37, no. 2, pp. 502–503 (March, 1963) by D. E. Zeller in which the specimen from Cumberland County is designated as a neotype for *E. bowmani* Brown. No comment was made concerning the ICZN petition nor of our designation of Brady's specimen as neotype of *E. bowmani*. This designation was in manuscript submitted for the *Treatise on Invertebrate Paleontology* on 3 May 1962, and D. E. Zeller is on the editorial staff of the *Treatise* in Lawrence, Kansas. At the time of submission of the over 2,000 pages of typescript, we were assured by the editor that the volume would appear in print in the autumn of 1962. This appearance has been delayed although galleys containing the description of *Endothyra* were corrected some months ago. In November, 1962, the *Treatise* editorial staff was also supplied with a copy of our comments and alternative proposal to the Commission including discussion of the neotype based on Brady's specimens.

3. According to the Rules, Art. 75(a), neotypes are to be designated " only in connection with revisionary work, and . . . when a neotype is necessary in the interests of stability of nomenclature ", and it is validly designated (Art. 75(c)(1)) only when published with a " statement of the characters . . . differentiating the taxon for which the neotype is designated ". The neotype designated by D. N. Zeller does not stabilize the nomenclature of this species nor the genus based on it, as such differentiating characters are not published. No comment is given

as to the wall characters on which most of the genera of this family and superfamily are based, nor whether the neotype is based on a random section, or on a free specimen for which the external characters are known, hence the status of the genus is left as questionable as before. There is no indication in Zeller's description or figured section that could fix this form even as belonging to "*Endothyra*" in the sense of E. J. Zeller, 1950 (*Univ. Kansas, Paleontol. Contrib., Protozoa*, Art. 4), or as differentiating it from a sagittal section of primitive fusuline or any number of other nominal endothyrid genera (i.e., *Quasiendothyra, Planoendothyra, Ussuriella, Rhenothyra, Nanicella* or *Loeblichia*). Obviously, this brief note with neotype designation had priority as its sole purpose, in order to invalidate the designation of a neotype by the writers in the generic and familial revision in press in the *Treatise* and in the *Bull. zool. Nomenclature.*

4. The Commission is therefore notified that two neotype designations have thus been made and the future status of the genus *Endothyra* rests on the validity of such designation, as well as on the decision by the Commission as to the nominal type-species. If the petition by Henbest is accepted and *Endothyra* Phillips, 1846, type *E. bowmani* Phillips is recognized in the sense of Brady, the neotype designated by the writers (*Bull. zool. Nomencl.* and *Treatise on Invert. Paleontol.*) would be the valid neotype of the type-species of *Endothyra*. Acceptance of Rosovskaya's alternate proposal would have an identical result. The suppression by the Commission of *E. bowmani* Brown, 1843 (as also requested in the original petition) would indicate the neotype of Brown's species, designated by D. N. Zeller merely as the type of a suppressed species. Denial of the petition and alternative proposal by Rosovskaya would leave *E. bowmani* Brown as the type-species of *Endothyra*, and based on the neotype designated by D. N. Zeller. As this specimen and species will still require description for an understanding of the genus based on it, its recognition would not serve the interests of present stability in nomenclature.

By N. P. Malakhova (*Academy of Sciences of the U.S.S.R.*)

I saw the article of S. E. Rosovskaya stressing the necessity of preserving the genus *Endothyra* Brown, 1843, in the sense of Brady, 1876, with the type-species *Endothyra bradyi* Mikhailov, 1939.

I entirely agree with her point of view on this subject. The arguments she brought forward are convincing enough and I do not doubt that the members of the International Commission, having taken this into consideration, will reach the decision of preserving the genus *Endothyra* in the way suggested by Rosovskaya.

By Betty A. L. Skipp (*U.S. Geological Survey, Denver, Colorado*)

Of the two petitions in the July, 1962 issue of the *Bulletin of Zoological Nomenclature* proposing formal basic nomenclature for the endothyroid Foraminifera, I believe Dr. Henbest's has more merit than Dr. Rosovskaya's.

Dr. Rosovskaya's recommendation that *Endothyra bradyi* Mikhailov, 1939 be designated the type-species of a genus described almost a hundred years earlier seems only to compound the present confusion. Because the original specimens of Brown in 1843 and Phillips in 1846 are not comparable, well described or well figured, the specimens adequately described and figured by Brady in 1876 should be designated the type-species. The world-wide informal acceptance of Brady's description and nomenclature of this species for the last eighty-six years is, I believe, more than sufficient justification for its formal acceptance now.

The following comments on particulars are offered from the viewpoint of one interested in using these endothyrid Foraminifera and related forms for detailed stratigraphic correlation. Perhaps, eventually, they may prove useful for international stratigraphic correlation.

Mikhailov's 1939 description is much more complete and usable for detailed stratigraphic correlation than Brady's as it describes internal and external features of a single species in great detail. In the 1939 description, however, neither the exact horizon which yielded the specimens nor their repository is given. Perhaps these are recorded elsewhere ; if not, this situation makes further investigation and use of these specimens impossible.

Brady's British specimens, on the other hand, are preserved (ref. letter to Miss Margaret Spillane from Lloyd G. Henbest, 13 July 1961) and thus available for study and comparison. Brady's description (1876) unfortunately combines two species : one, *Endothyra baileyi* (Hall) which was distinguished and redescribed by Henbest in 1931, and the other, the true type-species of *Endothyra*. If *Endothyra bowmani* Phillips [1846] according to the description and figures published by Brady, 1876, is to have significance in detailed stratigraphic studies, its internal characteristic must be described in detail and photographed. Since, to my knowledge, this had not been done, it was risky for Mikhailov to assume that the specimens from the Leningrad region which he figured in thin section are synonymous with Brady's whole specimens which are not figured in thin section. This possibly erroneous assumption should not be the basis for formal recognition.

Endothyra bradyi Mikhailov, 1939, is a valid species with stratigraphic significance, but I question its synonymy with *Endothyra bowmani* [1846] and thus the chief basis for its recognition as the type-species of *Endothyra*. *Endothyra bowmani* [1846] as described by Brady in 1876 has limited stratigraphic significance at this time, but the date of its description by Brady and its general acceptance and use since then justify its designation as the type-species of *Endothyra* in my opinion.

Both petitions urge retention of the generic designation, *Endothyra*, for the skew-coiled forms, and I concur. This basic approach will assume even more importance if dimorphism of the skew-coiled and planispiral forms is not demonstrated.

MELISSODES FONSCOLOMBEI ROMAND, 1841 (INSECTA, HYMENOPTERA); PROPOSED SUPPRESSION UNDER THE PLENARY POWERS AS A *NOMEN DUBIUM*. Z.N.(S.) 862

By Wallace E. LaBerge (*The University of Nebraska, Lincoln, Nebraska*)

The problem presented in this proposal came to notice during revisionary work on the genus *Melissodes* Latreille. In 1829, Latreille (*in* Cuvier, *Le Règne Animal* (ed. 2) **5** : 354) described the genus *Melissodes* without including any species. No species now known can be identified with Latreille's brief description of the genus. Romand in 1841 (*in* Guérin, *Mag. Zool.* (2)**3** : 5, pl. 70) described a male from the Antilles and a female from Chile as *Melissodes fonscolombei*. He presumed these to represent Latreille's insect. Even though the name *Melissodes fonscolombei* Romand has not been applied to any known species of *Melissodes* since Romand's original description, it has been considered as the type-species by virtue of being the first included species (Cockerell, 1920, *Bull. Amer. Mus. nat. Hist.* **42** : 595 ; Sandhouse, 1943, *Proc. U.S. nat. Mus.* **92** : 571 ; Michener, 1951, *in* Musebeck *et al*, *U.S.D.A. Agric. Monogr.*, No. 2 : 1222). Romand's description is inadequate and the figures accompanying the description are so crude as to be specifically unrecognizable. As far as the author has been able to determine from the literature and from correspondence with European museums (Cockerell, 1920, *loc. cit.*), the type-specimens of *Melissodes fonscolombei* have been lost or destroyed.

2. Cockerell (1920, *loc. cit.*) in discussing this problem suggested that Romand had before him a male of *Melissodes* (*sensu* Latreille) from the Antilles and a male (rather than a female) of *Diadasia* Patton, 1879, from Chile. The author concurs in this opinion, though on slightly different grounds. As Cockerell stated, Romand's figures 1A, 2, 3, 5A and 7 all indicate a male *Melissodes* and figure 5B indicates a male *Diadasia* (rather than a female *Melissodes*). In addition figures 1B and 4B indicate a male *Diadasia* by virtue of the length of the antennae and the shortness of the scape. Cockerell probably erred in referring figure 6 (tip of abdomen) to the specimen which Romand considered as the female of *Melissodes*. Romand clearly states in the text and in the explanation of the figures that the bidentate apical tergum is characteristic of the male from the Antilles. This poses a new problem. Male bees, regardless of genus, now known from the Antilles do not have the combination of characters indicated (yellow clypeus, long antennae, bidentate tip of abdomen). The only Eucerine genus of the Western hemisphere which might reasonably agree with Romand's description and figures is *Thygater* Holmberg, 1884, but *Thygater* has a black clypeus. It is possible that Romand mislabelled figure 6 and carried this error into the text of the description. Then Cockerell would be correct in referring figure 6 to a male of *Diadasia*.

3. In summary, the specific name *fonscolombei* Romand, 1841, is a *nomen dubium*. Certain aspects of the original description suggest strongly that one or both specimens described by Romand belonged to genera other than that

to which the name *Melissodes* has been applied for more than one hundred years. The genus *Melissodes*, as currently understood, includes more than one hundred named species. *Thygater* Holmberg and *Diadasia* Patton have been used for over sixty years and both include numerous species. If one or both of the types of *fonscolombei* were to be discovered and were found to belong to other genera as suggested above, great confusion would result from the ensuing changes in these well-established generic names.

4. The suppression of the specific name *fonscolombei* Romand, as published in the binomen *Melissodes fonscolombei*, would allow the second species included in the genus to be considered as the type-species of the genus *Melissodes*. This is *Melissodes leprieuri* Blanchard, 1849 (*in* Cuvier, *Le Règne Animal* (ed. 3), 2, atlas plate 128 bis, figs. 4 and 4a), which is readily recognizable as belonging to an abundant and varied group of North American species of the genus *Melissodes*. A neotype has been designated for *Melissodes leprieuri* Blanchard by the present author (1962, *Ent. News* **73** : 164—165).

5. The International Commission on Zoological Nomenclature is requested :

(1) to use its plenary powers :
  (a) to suppress the specific name *fonscolombei* Romand, 1841, as published in the binomen *Melissodes fonscolombei*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
  (b) to set aside all designations of type-species for the genus *Melissodes* Latreille, 1829, made prior to the Ruling now requested and, having done so, to designate *Melissodes leprieuri* Blanchard, 1849, to be the type-species of that genus ;
(2) to place the generic name *Melissodes* Latreille, 1829 (gender : feminine), type-species, by designation under the plenary powers in (1)(b) above, *Melissodes leprieuri* Blanchard, 1849, on the Official List of Generic Names in Zoology ;
(3) to place the specific name *leprieuri* Blanchard, 1849, as published in the binomen *Melissodes leprieuri*, as interpreted by the neotype designated by LaBerge, 1962 (type-species of *Melissodes* Latreille, 1829) on the Official List of Specific Names in Zoology ;
(4) to place the specific name *fonscolombei* Romand, 1841, as published in the binomen *Melissodes fonscolombei* (as suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Specific Names in Zoology.

ASCOLI GUÉRIN-MÉNEVILLE, 1839 AND *ASCOLI* BETREM, 1926 (INSECTA, HYMENOPTERA): PROPOSED REJECTION AS UNAVAILABLE. Z.N.(S.) 1176

By C. Jacot-Guillarmod, J. Chester Bradley, and J. G. Betrem

The purpose of the present application is to dispose of two names not in current use and regarded as unavailable, as well as to offer amendments to the Code to cover the principles involved.

1. Guérin-Ménéville in 1839 divided the Scoliidae, *sensu latu*, according to possible arrangement of cells in the forewing. He assigned the name *Ascoli* to one such group, purely hypothetical, because he knew no wasps that might belong to it. Saussure and Sichel listed *Ascoli* as a synonym of the subgenus *Triscolia*; Schrottky, 1910, included it in a key but as a hypothetical group, without species. Betrem, 1926, accepted the nominal taxon and placed four species in it. Betrem, 1928, p. 56, wrote: " Das oft mit *Triscolia* S. & S. identifizierte hypothetische Geschlecht *Ascoli* Guér. gehört nicht zu den Scoliiden, sondern zu den Anthoboscinen." There the matter rests.

2. According to Art. 1 of the Code: " Names given to hypothetical concepts . . . are excluded (from zoological nomenclature) ". Therefore, *Ascoli* Guérin is not an available name. Unlike a new nominal genus without included species (*cf.* Art. 69, a, i), it was not validated as of Guérin, 1839, when Betrem, 1926, assigned to it species.

3. The distinction between a genus established without species, and a hypothetical genus is, perhaps, fine. It would seem to be that the name is given to a hypothetical concept if the author knows of no existing animal to assign to it, but that prior to 1931, he may have established an available generic-group name, if he actually knew a species that he intended should belong to it.

4. Homonymy exists only between available names. Therefore the use of *Ascoli* by Guérin did not pre-empt that name, and does not invalidate *Ascoli* Betrem, 1926.

5. Betrem, 1926, translated, reads: The Indonesian representatives of the old subgenus *Ascoli* Guérin (=*Triscolia* Sauss. & Sichel) appear to belong to four natural subgenera. The subgenus of which *Scolia haemorrhoidalis* is the type has an extensive distribution, but does not occur in America. *Scolia procera* and *Scolia rubiginosa* are typical Indonesian representatives. The subgenus to which *Scolia kollari* belongs has about the same distribution as the *Diliacos* group of the subgenus *Liacos*. The subgenus *Trisciloa* occurs in Papua and the Moluccas.

6. It is entirely clear that Betrem did not intend to establish a new genus. Did he actually do so under technicalities of Chapter IV of the Code ? We have considered this question, and have come to the conclusion that there are grounds for considering that he did. But we also conclude that such an interpretation was not foreseen by the framers of the Code, and we subjoin an amendment to the Code to prevent it.

Bull. zool. Nomencl., Vol. 20, Part 4. July, 1963.

7. There is another reason for not using *Ascoli* : Art. 11(b) requires that an arbitrary combination of letters must be so constructed that it can be treated as a Latin word. Art. 11(f) requires that a generic-group name be a noun in the nominative singular, or be treated as such. There is no precedent in either Greek or Latin for regarding or treating a word ending in the letter i as a nominative singular. "*Ascoli*" is the genitive singular of a fabricated word "*Ascolus*", therefore is invalid under the rules just cited.

8. For the reasons set out in the present application, we now ask the International Commission on Zoological Nomenclature to rule that *Ascoli* Guérin, 1839, and *Ascoli* Betrem, 1926, are each unavailable names, and to place them on the Official Index of Rejected and Invalid Generic Names in Zoology.

APPENDIX A

We wish to propose the adoption of the following Declaration, which, if adopted by the Commission and confirmed by the next Congress, could become Article 10(c) of the Code :

> "No name shall be regarded as having been made available if there is clear evidence in its original publication that the author neither intended to establish a new taxon nor to provide a substitute name for an already established taxon. A name rejected on this ground is to be reported to the Commission who shall either, (a) adopt the name and place it on the appropriate Official List, on the grounds that it is in current use, and that its conservation is in the interests of continuity, or (b) after six months public notice without protest being received, place the name on the appropriate Official Index of Rejected and Invalid Names in Zoology. If protest is received, the Commission shall reach its own decision without having to evoke its plenary power."

APPENDIX B

We wish to propose the following Declaration which, if adopted by the Commission and confirmed by the Congress could become Article 11f(i) of the Code :

> "An arbitrary combination of letters, in order to be treated as a noun in the nominative singular, must terminate in one of the nominative singular endings used in classical Latin (Table 2A, Appendix VII of the Code). Any zoologist noting a name that does not meet this requirement, acting in the interests of continuity, may either reject the name as unavailable, or properly amend it, then retaining its original author and date. His decision when published shall not be subject to change except by the Commission.
>
> Example : *Ascoli*, anagram of *Scolia*, cannot be treated as a Latin word in the nominative singular, and is therefore unavailable as a generic name. Were it in current use it could be amended to *Ascolus* or *Ascolia*, but since it is not in use, it must be rejected."

TANAGRA LINNAEUS, 1764, AND *TANAGRA* LINNAEUS, 1766 (AVES): PROPOSED USE OF THE PLENARY POWERS TO END CONFUSION. Z.N.(S.) 1182

Application submitted by
The Standing Committee on Ornithological Nomenclature (S.C.O.N.)
of The International Ornithological Congress
Chairman: Finn Salomonsen

The family name of the Tanagers is at present subject to conflicting usage in America and Europe, and it is necessary for ornithologists in order to reach universal stability and uniformity to put the question before I.C.Z.N. Therefore, S.C.O.N. asks the commission to adopt the under-mentioned solution, recommended by the committee (" Proposal A"). (See below for Proposal B.)

The question is whether TANAGRIDAE or THRAUPIDAE should be used as the family name for the tanagers. The problem has arisen because Linnaeus introduced the name *Tanagra* twice into the literature, for quite different taxa. In 1764 (*Mus. Adolphi Friderici* 2 : 30) he used the name for a heterogeneous assortment of species of two families. In 1766 (*Syst. Nat.* (ed. 12) **1** : 313) he abandoned his treatment of two years earlier and used the name *Tanagra* for the tanagers. This first reviser action, not valid by our modern standards, was accepted by Linnaeus's contemporaries and was adopted for the next 150 years. The rediscovery in 1908 of the discarded nominal genus *Tanagra* Linnaeus, 1764, led to the proposal (in 1926) of the family name THRAUPIDAE (based on *Thraupis* Boie, 1826) for what was previously known as TANAGRIDAE, and of the transfer of the generic name *Tanagra* to the euphonias, replacing the old-established generic name *Euphonia* Desmarest, 1806, as a subjective junior synonym of *Tanagra* Linnaeus, 1764. THRAUPIDAE is now used by virtually all American authors, and TANAGRIDAE by most Continental Europeans.

Prof. Ernst Mayr has carefully worked up a memorandum including a history of the names in question as well as a number of alternate proposals for the solution of the controversy concerning the use of the family name for the tanagers. Subsequently Prof. Mayr has handed his memorandum to S.C.O.N., asking the committee to submit an application to I.C.Z.N. in this matter.

PROF. ERNST MAYR'S MEMORANDUM ON THE HISTORY OF THE NAMES

I.

" 1838–1926. Tanagridae used from 1838 on. The name Tanagrinae was first used by Bonaparte (1838) in *Geog. Comp List of Birds of Europe and North America* : 35. Here included are only *Piranga rubra* (L.) and *P. ludoviciana*; neither species belongs to the genus *Tanagra* from which the name of the subfamily was derived. However, in the *Conspectus Generum Avium* (1850, pp. 236–242, 1857) Bonaparte's concept of the genus *Tanagra* corresponds fairly well to the nominal genus *Tanagra* as it had been defined by Linnaeus in 1766. Here Bonaparte included two subfamilies and nineteen genera in the Tanagridae. Because the earlier work (1838) included only North American species, and *Tanagra* does not occur in North America, it may be assumed that he had not changed his opinion in the interim. His name Tanagrinae satisfies the rules in that it is derived from the name of a genus.

1886. Sclater in the *Catalogue of Birds in the British Museum* **11**(2) used the family name Tanagridae based on Linnaeus, 1766 (type *T. episcopus* L.).

1902. Ridgway in " Birds of North and Middle America " (*Bull. U.S. nat. Mus.* no. 50, pt. 2) followed Sclater in his use of Tanagridae based on *Tanagra* Linnaeus, 1766.

1908. Stability of this usage of names was upset when Richmond (*Proc. U.S. nat. Mus.* **35** : 644, footnote) called attention to a different and earlier use of *Tanagra* by Linnaeus in 1764 (*Mus. Adolphi Friderici* 2, Prod., p. 30). At that time Linnaeus included three species in *Tanagra*, two of them troupials (Family Icteridae) and the third a euphonia. This last species, *Tanagra violacea* (=*Fringilla violacea* L., 1758) was selected as type-species by Richmond (*l. c.*) as the first reviser. Linnaeus abandoned his curiously composite treatment of *Tanagra* of 1764 in his expanded and revised treatment of 1766 (*Syst. Nat.* (ed. 12) **1** : 313).

In obedience to the International Rules, Richmond proposed that, (1) the name *Tanagra* be transferred from the true tanagers to the euphonias, (2) that *Thraupis* Boie, 1826, a junior synonym of *Tanagra* Linnaeus, 1766, be used for the true tanagers, (3) and that the generic name *Euphonia* Desmarest, 1806, be placed in the synonymy of *Tanagra* L., 1764.

In accordance with this treatment Richmond (*l. c.*) suggested either that the family name might be derived from the Brissonian genus *Tangara* or that the name Tanagridae, based on *Tanagra* Linnaeus, 1764 (instead of *Tanagra* Linnaeus, 1766), might be continued in use. This latter suggestion was adopted in years following.

II.

" 1926 to date. Thraupidae currently used by New World authors ; Tanagridae still used by many Continental European authors.

1926. Wetmore & Miller (1926, *Auk* **43** : 346) pointed out, quite correctly, that Richmond's proposal to continue the family name Tanagridae was in violation of the type method, since *Tanagra* 1764 is zoologically very different from *Tanagra* 1766. They proposed to replace the family name Tanagridae by Thraupidae, based on *Thraupis* Boie, 1826. This suggestion has been adopted in most subsequently published major works on ornithology. These include the *Checklist of the American Ornithologists' Union* (1931, 1957), Hellmayr's *Catalogue of the Birds of the Americas* (pt. IX, 1936) and the *Zoological Record.* However, in the two most recent important compendia of general zoology, Kükenthal & Krumbach, *Handbuch der Zoologie*, and Grassé, *Traité de Zoologie*, Stresemann and Berlioz have still used Tanagridae and Tanagridés respectively, epitomizing usage of ornithologists of continental Europe."

It is clear from this history of the case that there has been no stability with respect to the names *Tanagra* and *Euphonia* or the family name since the suggestions and changes of 1908 and 1926, nor universality in current usage.

No author seems to have formally designated either *Tanagra* Linnaeus, 1764, or *Tanagra* Linnaeus, 1766, as type-genus of the subfamily Tanagrinae Bonaparte, 1838.

Prof. Mayr has, further, scheduled four alternate possibilities available for a solution of the question, giving advantages and disadvantages of each course. The four courses have been called Alternatives I–IV in the undermentioned comments by Prof. Mayr.

PROFESSOR ERNST MAYR'S FOUR ALTERNATIVES

Alternative 1

To place the name *Tanagra* L., 1764, on the Index of Rejected and Invalid Names both for purposes of synonymy and homonymy, and to designate *Tanagra* L., 1766, as the type-genus of the family Tanagridae Bonaparte, 1838.

Advantages :

(1) It legalizes Linnaeus's own action, who in 1766 suppressed the preliminary and confusing 1764 concept of *Tanagra*, an action supported until 1908 by all subsequent authors.

(2) It permits continuation of the historical usage of the names *Tanagra* (as used for 142 years) and *Euphonia* (as used for 102 years).

(3) It prevents the shift of the well-known name *Tanagra* from one genus to a very different genus, sometimes placed in a different subfamily.

(4) It restores congruence of the scientific name of family and genus with the vernacular names tanager and euphonia.

(5) It eliminates the name *Tanagra* L., 1764, a name forgotten for 142 years.

Disadvantages :

It reverses recent usage of the names *Thraupis*, Thraupidae, and *Tanagra*, a result of the proposals of Richmond 1908 and Wetmore & Miller 1926.

Alternative 2

To adopt *Tanagra* L., 1764, and to designate it as the type-genus of the family of tanagers.

This was essentially Richmond's proposal of 1908.

Advantages :

It saves the well-known family name Tanagridae.

Disadvantages :

(1) It shifts the zoological basis of the type of the family Tanagridae, an action in open conflict with the basic concept of the type method. It is for this reason that Richmond's proposal was rightly rejected by Wetmore and all those other recent workers, who adopt *Tanagra* as of Linnaeus, 1764.

(2) It does not prevent the confusing change of the name *Tanagra* from true tanagers to the euphonias.

Alternative 3

To place both *Tanagra* L., 1764, and *Tanagra* L., 1766, on the Index of Rejected Names.

Advantages :

(1) It eliminates the confusing transfer of the name *Tanagra* from one genus to another.

(2) It permits continuance of the name *Euphonia* and of the widely used names *Thraupis* and Thraupidae.

Disadvantages :

(1) It requires the elimination of two names.

(2) It does not prevent loss of the well-known names Tanagridae and *Tanagra*.

Alternative 4

To accept *Tanagra* L., 1764, as valid, to designate *Tanagra* L., 1766, as type-genus of the family Tanagridae, and to replace the last two names, as invalid homonyms, by *Thraupis* and Thraupidae, respectively.

This is essentially the decision of the A.O.U. Checklist Committee. It leads to the loss of the names Tanagridae and *Euphonia* and results in the shift of the name *Tanagra* from one zoological genus to another.

Advantages :

It conforms with current usage of the majority, particularly in the New World. However, the danger of confusion is so evident that even Hellmayr often uses the designation *Tanagra* (*Euphonia*) to indicate which genus he is referring to.

Disadvantages :

A negation of all the advantages of proposal 1, in particular a shift from historical usage, a usage in opposition to the vernacular names, and a shift of a name from one zoological entity to a very different one.

The decision to be made in the present case must take into consideration whether a restoration of the historical usage or a continuation of the current usage of the names in question should form the basis for the solution of the problem regarding the family name of the tanagers.

*Proposal A**

The S.C.O.N. is in favour of the above-mentioned Alternative 1 of Prof. Mayr and unanimously recommends the International Commission on Zoological Nomenclature to adopt this solution, on account of the very great advantages attached to this proposal. These advantages, numbered 1–5, are enumerated and discussed by Prof. Mayr in his notes above, under the heading "Alternative 1 ". The committee wants to emphasize the advantages number (2) and (3) particularly. The adoption of Alternative 1 will in the most appropriate way conform with the endeavours to reach stability and uniformity.

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* See below for an alternate Proposal B.

If this alternative is adopted it will be necessary to use the plenary powers to validate the type-species of *Tanagra* Linnaeus, 1766, *Tanagra episcopus* Linnaeus, 1766 (*Syst. Nat.* (ed. 12) **1** : 316). On page 303 of the same work Linnaeus described *Loxia virens*, long considered indeterminable until Gyldenstope examined the type in Uppsala and concluded (*K. svensk. Vetensk.-Akad. Handl.* (3) **22** : 310–311) that it belonged to *Tanagra episcopus*, and that *episcopus* must be replaced by *virens* since the latter has page priority. Since Gyldenstope was the first to consider the two species as synonymous, he acted as First Reviser in choosing *Loxia virens* as the valid name for the species. *Loxia virens*, however, has never been used in this sense and Gyldenstope was wrong in thinking that he had to follow page priority. Under these circumstances the Commission is asked to use its plenary powers to overrule his action.

RECOMMENDATIONS

On the basis of the above-mentioned considerations the S.C.O.N., in order to reach stability and uniformity in the usage of the family name of the tanagers and of certain generic names within this family, asks the International Commission on Zoological Nomenclature to take the following action, namely, that it should :

(1) use its plenary powers :
  (a) to suppress the generic name *Tanagra* Linnaeus, 1764, for the purposes of both the Law of Priority and the Law of Homonymy ;
  (b) to designate *Tanagra* Linnaeus, 1766, as the type-genus of the subfamily group taxon TANAGRINAE Bonaparte, 1838, in the Class Aves.
  (c) to direct that *Loxia virens* Linnaeus, 1766, is not to be given priority over *Tanagra episcopus* Linnaeus, 1766, despite the action of Gyldenstope, 1945, acting as first reviser.
(2) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Tanagra* Linnaeus, 1766 (*Syst. Nat.* (ed. 12) **1** : 313) (gender : feminine), type-species, by designation by Sclater, 1886 (*Cat. Birds Brit. Mus.* **11** : 153), *Tanagra episcopus* Linnaeus, 1766 (*loc. cit.*) : 316) ;
  (b) *Euphonia* Desmarest, 1806 (*Hist. Nat. Tangaras*, livr. 10 : pl. 27) (gender : feminine), type-species, by monotypy, *Euphonia olivacea* Desmarest=*Euphonia minuta* Cabanis, 1849*.
(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *episcopus* Linnaeus, 1766, as published in the binomen *Tanagra*

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* *Euphonia olivacea* Desmarest was formerly by many authors regarded as indeterminable as to species, but Hellmayr (1936, *Birds of the Americas* **9** : 31) examined the type in the Paris Museum and found it to be the female of the species also known as *E. minuta* Cabanis, 1849, in Schomburgk (*Reisen Brit. Guiana* 3 (1848) : 671). However, by placing this species in the genus *Tanagra* Linnaeus, 1764, Hellmayr made *Euphonia olivacea* Desmarest a secondary junior homonym of *Tanagra olivacea* Gmelin, 1788 (*Syst. nat.* (ed. 13) **1**: 889)=*Piranga rubra* (Linnaeus).

episcopus (type-species of *Tanagra* Linnaeus, 1766);
  - (b) *minuta* Cabanis, 1849, as published in the binomen *Euphonia minuta* [the oldest available name for *Euphonia olivacea* Desmarest, type-species of *Euphonia*].

(4) to place the family-group name TANAGRINAE Bonaparte, 1848 (*Geogr. Comp. List of Birds of Europe and North America* : 35) (type-genus *Tanagra* Linnaeus, 1766) on the Official List of Family-Group Names in Zoology;

(5) to place the generic name *Tanagra* Linnaeus, 1764 (*Mus. Adolph. Frid.* 2, Prodr. : 30) (as suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

Finn Salomonsen (*Zoologisk Museum, Copenhagen*);
George C. A. Junge (*Rijksmuseum van Natuurlijke Historie, Leiden*);
Erwin Stresemann (*Zoologisches Museum der Universität, Berlin*).

27 November, 1956

Proposal B

By Ernst Mayr (*Museum of Comparative Zoology, Cambridge, Mass., U.S.A.*);
Alden H. Miller (*Museum of Vertebrate Zoology, University of California, Berkeley*);
Robert W. Storer* (*Museum of Zoology, University of Michigan, Ann Arbor*);
Erwin Streseman (*Zoologisches Museum der Universität, Berlin*).

Strong opposition was voiced by American ornithologists against Proposal A when it was presented in 1958 at the XII International Ornithological Congress (Helsinki) as the report of the Standing Committee on Ornithological Nomenclature (*Proceedings XII Int. Ornith. Congress* 1 : 43). It was pointed out that the names *Thraupis* and THRAUPIDAE for the tanagers had come into such universal usage in the last 30–35 years that it would lead to a far greater disturbance of stability to restore the classical names *Tanagra* and TANAGRIDAE than to sanction current usage. Indeed all the modern workers who specialize in tanagers or the American bird fauna as well as all the major faunas and checklists, use the names *Thraupis* and THRAUPIDAE. On the other hand, these critics admitted that the transfer of the name *Tanagra* from the tanagers to the euphonias was highly confusing and that the generic name *Tanagra* had, in consequence, lost much of its usefulness. The name *Tanagra* has the further disadvantage that there is in the tanager family another very similar valid generic name (*Tangara* Brisson, 1760), a fact which has led to frequent confusion in the past. For all these reasons the proponents of Proposal B suggest the suppression of the name *Tanagra* altogether. This action would parallel the suppression of the name *Colymbus* (Opinion 401) which has restored uniformity to the scientific nomenclature of the grebes and loons (divers). In line with these suggestions we propose that the Commission adopt Alternative 3 above.

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* Author of the Family Thraupidae in a forthcoming volume of Peter's Checklist of Birds of the World.

The International Commission on Zoological Nomenclature is herewith requested:

(1) to use its plenary powers:
  (a) to suppress the generic name *Tanagra* Linnaeus, 1764, for the purposes of the Law of Priority but not for those of the Law of Homonymy;
  (b) to direct that *Loxia virens* Linnaeus, 1766, is not to be given priority over *Tanagra episcopus* Linnaeus, 1766, despite the action of Gyldenstope 1945, acting as first reviser;
(2) to place the following generic names on the Official List of Generic Names in Zoology:
  (a) *Euphonia* Desmarest, 1806;
  (b) *Thraupis* Boie, 1826 (*Isis* (Oken): 974) (gender: feminine), type-species, by monotypy, *Tanagra archiepiscopus* Desmarest, 1806 (*op. cit.* (7): pl. 17);
(3) to place the following specific names on the Official List of Specific Names in Zoology:
  (a) *ornata* Sparrman, 1789 (*Mus. Carls.*, fasc. 4: pl. 95), as published in the binomen *Tanagra ornata* [oldest available name for the type-species of *Thraupis* Boie, 1826];
  (b) *olivacea** Desmarest, 1806, as published in the binomen *Euphonia olivacea* (type-species of *Euphonia* Desmarest, 1806);
  (c) *episcopus* Linnaeus, 1766, as published in the binomen *Tanagra episcopus*;
(4) to place the family group name THRAUPIDAE Wetmore & Miller, 1926 (type-genus *Thraupis* Boie, 1826) on the Official List of Family-Group Names in Zoology;
(5) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  (a) *Tanagra* Linnaeus, 1764 (as suppressed under the plenary powers in (1)(a) above);
  (b) *Tanagra* Linnaeus, 1766 (a junior homonym of *Tanagra* Linnaeus, 1764);
(6) to place the family-group name TANAGRIDAE Bonaparte, 1838 (rejected because based either on a name suppressed under the plenary powers, or a name rejected as a junior homonym) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

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* *Euphonia olivacea* has never been rejected as a junior secondary homonym. To displace it now by the little known name *Euphonia minuta* Cabanis 1849, because of temporary secondary homonymy, would seem highly undesirable.

LEPROTA MELICHAR, 1912 (INSECTA, HOMOPTERA); PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S.) 1530

By R. G. Fennah (*Commonwealth Institute of Entomology, London*)

In accordance with the direction given in Article 70(a) of the International Code of Zoological Nomenclature, application is here made to the Commission on Zoological Nomenclature to designate a type-species for the genus *Leprota* Melichar (Homoptera, Fulgoroidea : Dictyopharidae).

2. In 1912, Melichar erected the genus *Leprota* to accommodate a species represented by specimens from Soekaranda and Ober Langkat in Sumatra (*Abh. k.-k. zool. bot. Ges. Wien* **7** : 33 (in key) 91, pl. 111, figs. 14, 15). The generic characters given in the key, and those in the formal description, and the specific characters given for the single included species, and the illustrations based on his specimens, clearly demonstrate his concept of the genus. Since that time, according to the General Catalogue of Hemiptera (fasc. 4, part 8 : 75) the generic name *Leprota* has been used (as an item in a list) by only one other author.

3. Melichar believed that the specimens on which his genus was based represented *Dictyophara fulgoroides* Walker (1858, *List Hom.*, Suppl. 67), and he applied this specific name to them, and in consequence was led to cite *Dictyophara fulgoroides* Walker as the type-species of the genus.

4. Unfortunately, the type-specimen of *Dictyophara fulgoroides* Walker is neither conspecific nor congeneric with the specimen described and figured by Melichar, and although hitherto not so recognised, must be referred to the genus *Saigona* (Matsumura, 1910, *Trans. Sapporo Nat. Hist. Soc.* **3** : 110), and be known under the name *Saigona fulgoroides* (Walker) *comb. nov.*

5. The species described by Melichar, and wrongly attributed by him to *Dictyophara fulgoroides* Walker, does not appear to have been described under a different name by any other author. For *Leprota fulgoroides* Melichar (nec Walker) the new name *Leprota melichari* is here proposed.

6. If the status of the generic name *Leprota* is to be considered as settled by the application of the Rules with regard to its designated type-species, it will have to be suppressed under *Saigona* Matsumura, and the generic concept based on *Leprota melichari* will require a new name.

7. The concept is at present still based on a single species, and has received the minimum notice in literature ; there is accordingly no strong claim to be advanced for preferring the nominal species actually involved to the species named by Melichar as the type of the genus. On the other hand, no confusion has yet arisen regarding Melichar's concept, and it has been clearly characterised by his description and figures. The minimum change necessary to stabilise the concept would be to designate *L. melichari*, the species actually involved, as the type-species of the genus (Art. 70(a)(i)). Melichar's monograph is still the principal work of reference on the Dictyopharidae, and if the only possible

Bull. zool. Nomencl., Vol. 20, Part 4. July, 1963.

other course were taken in designating a type-species (Art. 70(a) (iii)), the resulting suppression of *Leprota* under *Saigona*, and the provision of a new name for the generic concept for which *Leprota* has been used, would tend in some degree to lead to confusion, and, of the two alternatives, would be less economical in the use of generic names.

8. The International Commission is therefore requested :

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Leprota* Melichar, 1912, made prior to the Ruling now requested and, having done so, to designate the nominal species *Leprota melichari* Fennah, 1963, to be the type-species of that genus ;

(2) to place the generic name *Leprota* Melichar, 1912 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Leprota melichari* Fennah, 1963, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *melichari* Fennah, 1963, as published in the binomen *Leprota melichari* (type-species of *Leprota* Melichar, 1912) on the Official List of Specific Names in Zoology.

A FURTHER PROPOSAL CONCERNING THE *TIPULA OLERACEA* GROUP OF SPECIES. (Z.N.(S.) 896)

(see vol. 17, pages 209–213)

By W. E. China (*Acting Secretary to the International Commission*)

Dr. Alan Stone has pointed out that the name *Tipula paludosa* Meigen, 1830, which was proposed for the Official List, is a primary homonym of *Tipula paludosa* Fabricius, 1794 (*Ent. syst.* 4 : 239). In reply to Dr. Stone's comment, Dr. Lemche wrote the following letter to the office of the Commission :

" (1) Dr. Stone is completely right in his citation ;

(2) The name *Tipula paludosa* Fabricius has never come into real use ;

(3) Mrs. Ella Zimsen, who has just finished a very careful and thorough revision of all of Fabricius's types, has informed me that the types of *Tipula paludosa* Fabricius have all definitely gone, so that the said species will forever remain unidentifiable.

" Hence, I see no reason whatsoever why Meigen's name should give way for another and unfamiliar one because of the primary homonymy thus proven by Dr. Stone to exist. Instead, I propose to add the following points at the relevant place in the application of Dr. Hemmingsen and myself :

(a) to suppress, under the plenary powers the name *Tipula paludosa* Fabricius, 1794 (a nomen dubium), for the purposes of both the Law of Priority and the Law of Homonymy ;

(b) to place on the Official Index of Rejected and Invalid Specific Names in Zoology, the name *Tipula paludosa* Fabricius, 1794, as suppressed above."

BORIOMYIA BANKS, 1905 (INSECTA, NEUROPTERA): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1531

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

The purpose of this application is to seek the stabilisation of the generic name *Boriomyia* Banks, 1905, in the sense which its author originally intended. In order to do this, the Commission is asked to suppress under the plenary powers the generic name *Boriomyia* Banks, 1904.

2. The first mention of the generic name *Boriomyia* is in a list of the Neuroptera of Washington, D.C., Banks (1904, *Proc. ent. Soc. Wash.* **6** : 209). Two species are listed, *Boriomyia fidelis* Banks and *Boriomyia speciosa* Banks. Both are previously described species (in *Hemerobius*), but no description is given of *Boriomyia* nor is there any indication that it is intended as a new generic name. In the following year, the generic name *Boriomyia* Banks appears as a new genus, with diagnosis, in a revision of the Nearctic Hemerobiidae (Banks, 1905, *Trans. Amer. ent. Soc.* **32** : 36) and the type-species is designated as *Boriomyia disjuncta* (Banks, 1897). The two species listed in the 1904 publication are also included in the genus.

3. In 1930, Banks (*Psyche* **37** : 224) proposed the new subgeneric name *Allotomyia* (but without designation of a type-species) for the two species originally listed as *Boriomyia* in 1904, and in later papers Banks treats *Allotomyia* as a valid genus distinct from *Boriomyia* Banks (*sensu* 1905).

4. In 1937, Killington (*Mon. Brit. Neur.* **2** : 253, Ray Soc., London) pointed out that under the International Rules of Nomenclature, *Boriomyia* Banks, 1904, was a valid generic name, since it contained two previously described species. He therefore designated *Hemerobius fidelis* Banks, 1897 (one of the originally included species) as the type-species of *Boriomyia* Banks, 1904, placing *Allotomyia* Banks, 1930, as a synonym, both genera having the same two originally included species. For the British species then standing in *Boriomyia* Banks, 1905, he erected a new genus, *Kimminsia* (1937, *Mon. Brit. Neur.* **2** : 254), with type-species *Hemerobius betulinus* Strøm, 1788. It is generally agreed that *Hemerobius betulinus* Strøm and *Hemerobius disjunctus* Banks are congeneric.

5. It has since become evident that the taxon intended by Banks when erecting the generic name *Boriomyia* was that typified by *Hemerobius disjunctus* Banks and its congeners. This is made quite clear by a footnote to Carpenter's revision of the Nearctic Hemerobiidae (1940, *Proc. Amer. Acad. Arts Sci.* **74** : 215) which reads : " Mr. Banks has explained to me that although his revision [1905], was published after the Washington List [1904], it was sent for publication before the latter, which did not therefore include genotype designation." (The dates in square brackets are not in the original footnote.)

6. In *Boriomyia* Banks, we thus have a case in which the retrospective application of the Rules has lead to the adoption of an interpretation of the generic name *Boriomyia* Banks contrary to the original intention of the author.

Killington's action is justified under the Rules, but his generic name *Kimminsia* has not been universally adopted. Dr. B. Tjeder, in particular, has adhered to the use of the name *Boriomyia* Banks (*sensu* 1905) and he has recently pointed out (1961, *S. Afr. Anim. Life* **8** : 366) that if a new name be needed for *Boriomyia* Banks, 1905, the generic name *Wesmaelius* Krüger, 1922, as a subjective synonym of *Boriomyia* Banks, 1905, should replace *Kimminsia* Killington, 1937.

7. Having regard to the fact that the name *Kimminsia* proposed by Killington is itself threatened with replacement by *Wesmaelius*, it seems desirable that stability in nomenclature in this case be attained by suppressing the generic name *Boriomyia* Banks, 1904, and by placing *Boriomyia* Banks, 1905, on the Official List of Generic Names in Zoology, with type-species (by original designation) *Hemerobius disjunctus* Banks, 1897 (*Trans. Amer. ent. Soc.* **24** : 25).

8. The generic name *Boriomyia* Banks has not been used as the basis of any family-group name.

9. The International Commission is therefore asked :

(1) to use its plenary powers to suppress the generic name *Boriomyia* Banks, 1904, for the purposes of both the Law of Priority and the Law of Homonymy ;

(2) to place the generic name *Boriomyia* Banks, 1905 (gender : feminine), type-species, by original designation, *Hemerobius disjunctus* Banks, 1897, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *disjunctus* Banks, 1897, as published in the binomen *Hemerobius disjunctus* (type-species of *Boriomyia* Banks, 1905) on the Official List of Specific Names in Zoology ; and

(4) to place the generic name *Boriomyia* Banks, 1904 (suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

REQUEST THAT THE INTERNATIONAL COMMISSION RULE TO CORRECT HOMONYMY IN NAMES OF THE FAMILY-GROUP BASED ON *GERRIS* AND *GERRES*. Z.N.(S.) 1556

By Reeve M. Bailey and Thomas E. Moore (*The University of Michigan, Museum of Zoology, Ann Arbor, Michigan, U.S.A.*)

If homonymy between names in the family-group results from similarity but not identity of the names of their type-genera, the case is to be referred to the Commission (1961, International Code of Zoological Nomenclature, Art. 55(a)). An uncorrected case of homonymy involves the family-group name GERRIDAE, in current use both in Insecta (Hemiptera) and in Pisces (Perciformes).

Gerris Fabricius, 1794 (*Ent. syst.* **4** : 187), (Hemiptera), is the type-genus of the family-group name GERRIDA Leach, 1815 (*in* Brewster's *Edinburgh Encycl.* **9** : 123) more commonly attributed to GERRIDES Amyot and Serville, 1843 (*Histoire Naturelle des Insectes, Hémiptères :* 410). The emended name GERRIDAE is employed for a cosmopolitan group of about 50 genera and 500 species of insects, the water striders, that are familiar inhabitants of the surface film of lacustrine waters, streams, brackish waters, and even (*Halobates*) the open ocean. The type-species of *Gerris* Fabricius is *Cimex lacustris* Linnaeus, 1758, by designation by Latreille, 1810 (*Consid. gén. Anim. Crust. Arachn. Ins.* : 259, 434) [original not seen by authors, reference from Van Duzee, 1917 (Catalogue of the Hemiptera of America north of Mexico, *Univ. Calif. Tech. Bull. Entomol.* **2** : 426)].

Gerres [Cuvier, nomen nudum, in] Quoy & Gaimard, 1824 (*Voy. " Uranie "* (Zool.) : 292), (Perciformes), is the type-genus of the family-group name GERREIFORMES Bleeker, 1859 (Enumeratio specierum piscium hucusque in Archipelago Indico observatarum . . ., *Act. Soc. Sci. Indo-Neerl.* **6** : xx), where used as a subfamily of the MAENOIDEI, or GERREOIDEI (Bleeker, *op. cit.:* 32, 222, 236, 244, 271) where ranked as a family. Gill (1862, *Proc. Acad. nat. Sci. Philad.* **14** : 238, 245) employed the subfamily name GERREINAE in the family GERREOIDAE, attributed by him to Bleeker. Subsequent authors have followed Günther (1862, *Cat. Acanthopterygii Pharyngognathi and Anacanthini Br. Mus.* **4** : 252) in spelling the family name GERRIDAE. This family consists of five genera and about 40 species of tropical and subtropical shore fishes, some of which enter streams ; they are most common in the American tropics and in the East Indian region. The gerrid fishes have by some authors been united with the LEIOGNATHIDAE under the latter name. In both groups the mouth is highly protrusile, but this condition is due to convergent evolution and the union of these families does not have a firm biological basis (Starks, 1911, *Leland Stanford jr., Univ. Publ. Univ. Ser.* No. **5** : 5–17). The type-species of *Gerres* Quoy and Gaimard is *Gerres vaigiensis* Quoy & Gaimard, by designation by Jordan (1917, *Leland Stanford jr., Univ. Publ. Univ. Ser.* No. **27** : 117–118).

It is the consensus of both ichthyologists and entomologists with whom we have discussed this matter that among most biologists the name GERRIDAE is more widely known and generally associated with the group of insects than with the fishes. The hemipterous family is larger, is more wide-ranging geographically and ecologically, and is a more conspicuous and familiar group to the layman. The use of the family name in insects antedates that in fishes. It seems appropriate, therefore, that the name GERRIDAE be maintained for a family of the Hemiptera.

This is a request that the Commission emend the name for the fish-family GERRIDAE (Order Perciformes) in order to eliminate the homonymy with the insect family GERRIDAE (Order Hemiptera). Correction to GERREIDAE would be in keeping with Bleeker's original spelling.

The Commission is therefore requested :

(1) to place the following generic names on the Official List of Generic Names in Zoology :
  (a) *Gerris* Fabricius, 1794 (gender : feminine), type-species, by designation by Latreille, 1810, *Cimex lacustris* Linnaeus, 1758 (Insecta, Hemiptera) ;
  (b) *Gerres* Quoy & Gaimard, 1824 (gender : masculine), type-species, by designation by Jordan, 1917, *Gerres vaigiensis* Quoy & Gaimard, 1824 (Pisces) ;
(2) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *lacustris* Linnaeus, 1758, as published in the binomen *Cimex lacustris* (type-species of *Gerris* Fabricius, 1794) (Insecta, Hemiptera) ;
  (b) *vaigiensis* Quoy & Gaimard, 1824, as published in the binomen *Gerres vaigiensis* (type-species of *Gerres* Quoy & Gaimard, 1824) (Pisces) ;
(3) to place the following family-group names on the Official List of Family-Group Names in Zoology :
  (a) GERRIDAE (correction of GERRIDA) Leach, 1815 (type-genus *Gerris* Fabricius, 1794) (Insecta, Hemiptera) ;
  (b) GERREIDAE (correction of GERREIFORMES) Bleeker, 1859 (type-genus *Gerres* Quoy & Gaimard, 1824) (Pisces) ;
(4) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology :
  (a) GERRIDA Leach, 1815 (type-genus *Gerris* Fabricius, 1794) (an incorrect original spelling for GERRIDAE) ;
  (b) GERREIFORMES Bleeker, 1859 (type-genus *Gerres* Quoy & Gaimard, 1824) (an incorrect original spelling for GERREIDAE) ;
  (c) GERRIDAE Günther, 1862 (type-genus *Gerres* Quoy & Gaimard, 1824) (an incorrect spelling for GERREIDAE).

CONUS CLAVUS LINNAEUS, 1758; *CONUS MINIMUS* LINNAEUS, 1758; *CONUS RUSTICUS* LINNAEUS, 1758; AND *CONUS SENATOR* LINNAEUS, 1758 (MOLLUSCA, GASTROPODA); PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1558

By Alan J. Kohn (*Department of Zoology, University of Washington, Seattle, Washington, U.S.A.*)

This communication requests the International Commission on Zoological Nomenclature to make use of its plenary powers to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, four specific names in the genus *Conus* as published by Linnaeus in the *Systema Naturae*, 1758.

1. *Conus clavus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 716, No. 272. The diagnosis is " C. testa striis convexis laevibus, basi caerulescente ". The only other relevant information given is the infrageneric group, " *Elongati* basi rotundata, cylindro duplo longiore quam spira ".

The problem of what species Linnaeus intended to denote by the name *Conus clavus* results from (1) the inadequacy of the diagnosis and its lack of support by indications, subdescription, or locality, and (2) the likelihood that " in amplifying the description in the twelfth edition [p. 1170, No. 313] Linnaeus unwittingly described two species. The twelfth edition language adds to the original description details which apply to *C. auricomus* Hwass *in* Bruguière 1792, which became the *clavus* of Reeve and of Hanley (1855, p. 174), which is not *clavus* Linné [1758] . . . One description is brief and the other described two shells " (Dodge, 1953, *Bull. Amer. Mus. Nat. Hist.* **103** : 47).

Dodge (*op. cit.*) argued ingeniously that Linnaeus intended the name *C. clavus* to denote the species later described as *C. terebra* Born, 1778, which agrees with the Linnaean diagnosis and possesses two spiral bands which may be suggested by a secondary meaning of the word " clavus ", the purple stripe of certain Roman tunics. However, the bands on *C. terebra* are pale yellow, and I consider Linnaeus's diagnosis of *C. clavus* in the tenth edition of the *Systema*, unsupported by any cited figures or subdescription, insufficient to identify any species of *Conus* unequivocally.

Moreover, since there is no specimen in the Linnaean collection at the Linnean Society of London, since Linnaeus did not indicate in his own copies of the *Systema* that he possessed a specimen (Dodge, 1958, *Bull. Amer. Mus. nat. Hist.* **116** : 158), since none was present in the Museum Ludovicae Ulricae collection, and since no references to earlier works are cited, the basis for the description of *C. clavus* remains obscure. No specimen is available for selection as lectotype. For these reasons, I conclude that the name *Conus clavus* Linnaeus should be suppressed as a *nomen dubium*.

The diagnosis of *C. clavus* is the same in the 10th and 12th editions of the *Systema*. However, a subdescription, " testa flava, maculis albis reticulata ; fasciis duabus saturatioribus, maculis albis majoribus, striae obsoletae sunt ", was added by Linnaeus in the 12th edition (p. 1170). Linnaeus may have intended this addition to apply to the species later described as *C. auricomus* Hwass *in* Bruguière, 1792, as Dodge (1953) suggested. However, shells of the latter species do not have the blue base indicated in the diagnosis. Moreover, convex striae (lirae) on the shell are mentioned in the diagnosis, suggesting that they are prominent features of ornamentation. In the subdescription of the 12th edition, however, they are stated to be obsolete. These facts suggest, as Dodge (1953) concluded, that two species are confused in the description of *C. clavus* in the 12th edition. Neither portion of the description is certainly applicable to any known taxon, a conclusion which further supports suppression of the name *C. clavus* as a *nomen dubium.*

2. *Conus minimus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 714, No. 263. The diagnosis is " C. testa cinerascente punctis oblongis cincta ". The infrageneric group is "*Pyriformes* basi rotundata, sub-cylindrica quam spira sesquilongiore ". Figure A on pl. 15 in [Argenville] (1742, *L'Histoire Naturelle Eclaircie dan deux de ses Parties Principales, la Lithologie et la Conchyliologie*) is cited as an indication. No locality is given.

Linnaeus did not possess a specimen of the species he intended to designate by the name *C. minimus*, and the description is apparently based solely on accounts in previous works. As Hanley (1855, *Ipsa Linnaei Conchylia* : 169) pointed out, the specimen illustrated in the only figure cited " does not even answer to the single line of description in the ' *Systema* '." It is my opinion that the illustration is not identifiable to species. Dodge (1953) states that Linnaeus cited the Argenville figure in error. He adds that the description cannot be tied to a single known species and " the longer description in the ' Museum Ulricae ' [p. 556, No. 162] adds little that is helpful and may not have been designed to cover the same species ".

The specimen bearing No. 162 in the Museum Ludovicae Ulricae Collection, now in the Zoological Institute, Uppsala, has been erroneously labelled *C. monachus* by Thunberg, is listed as *C. minimus* by Odhner ([1953], *Identifications of Linnaean Shells in Museum Ludovicae Ulricae*, mimeographed : 8), and is actually of the species described as *C. mus* Hwass *in* Bruguière, 1792. The diagnosis and indication in the 12th edition of the *Systema* are identical with that of the 10th and thus shed no further light on Linnaeus's intent.

Hanley (1855 : 169) concluded that " any supposed determination of the species should be modified by a ' probably ' appended ". From a lengthy consideration of *C. minimus*, Dodge (1953 : 26) concluded that " this is a debatable species and, to the writer, unidentifiable ". I am in complete agreement and conclude that the name *C. minimus* Linnaeus should be suppressed as a *nomen dubium* on the following grounds : (1) the species is not identifiable from the original diagnosis ; (2) the only figure cited with the original diagnosis is not consistent with the diagnosis and cannot be unequivocally identified to species; (3) a subsequent description by Linnaeus (1764, *Museum s:ae r:ae m:tis Ludovicae Ulricae Reginae Svecorum*: 556, No. 162) possibly refers to a third species.

3. *Conus rusticus* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 714, No. 264. The diagnosis is " C. testa ovata, basi rugoso muricatoque scabra, spira conico

convexa ". The subdescription is " testa livida fascia albido-nebulosa ". The infrageneric group is " *Pyriformes* basi rotundata, sub-cylindrica quam spira sesquilongiore ". The following figures are cited as indications : Rumphius (1705, *D'Amboinsche Rariteitkamer*, pl. 32, fig. R) ; Gualtieri (1742, *Index Testarum Conchyliorum*, pl. 25, fig. R) ; [Argenville] (1742, *L'Histoire Naturelle Eclaircie dans deux de ses Parties Principales, la Lithologie et la Conchyliologie*, pl. 15, fig. D). The type-locality is given as Africa.

The disposition of the name *Conus rusticus* has been discussed at considerable length by Deshayes and Milne Edwards (1845, *Histoire Naturelle des Animaux sans Vertèbres* (ed. 2), vol. 11), Hanley (1855, *Ipsa Linnaei Conchylia*), and Dodge (1953, *Bull. Amer. Mus. nat. Hist.* **103**), all of whom recommend its suppression on the ground that its identity is too doubtful to be retained, a position with which I am in complete agreement. The reasons may be summarized as follows :

(1) The original diagnosis and subdescription " cannot be tied to a particular species " (Dodge, 1953).

(2) The three figures cited by Linnaeus are not unequivocally identifiable to species, they " représentent trois espèces bien distinctes " (Deshayes and Milne-Edwards, 1845), and " not one of the three most dissimilar figures . . . corresponds with the description " (Hanley, 1855).

(3) The tray labelled for *C. rusticus* in the Linnean collection at the Linnaean Society of London at present contains two specimens, each of a different species, *C. classiarius* Hwass *in* Bruguière (=*C. capitaneus* Linnaeus ?) and *C. lividus* Hwass *in* Bruguière. Both are unmarked but belonged to Linnaeus, according to Hanley (1855). (The specimen of *C. flavidus* Lamarck, which Hanley (1855) mentioned as also being present, was not in the tray when I examined it in 1958.)

(4) An additional description by Linnaeus (1764, *Museum s:ae r:ae m:tis Ludovicae Ulricae Reginae Svecorum* : 556, No. 163) does not clarify the original one, as it is probably based on a specimen of yet another species. The specimen labelled No. 163 in the Museum Ludovicae Ulricae collection at Uppsala is of *C. catus* Hwass *in* Bruguière. It has been erroneously labelled *C. genuanus* by Thunberg.

For these reasons I conclude that the name *Conus rusticus* Linnaeus should be suppressed as a *nomen dubium*.

4. *Conus senator* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 714, No. 258. The diagnosis is " C. testa conica laevi glabra, spirae anfractibus obtusis scriptis ". The infrageneric group is " *Pyriformes* basi rotundata, sub-cylindrica quam spira sesquilongiore ". No indications or locality are cited.

As in the case of *C. rusticus*, Deshayes & Milne-Edwards (1845, *Histoire Naturelle des Animaux sans Vertèbres* (ed. 2), vol. 11), Hanley (1855, *Ipsa Linnaei Conchylia*), and Dodge (1953, *Bull. Amer. Mus. nat. Hist.* **103**) state after thorough considerations that it is impossible to identify with certainty the species which Linnaeus intended to denote by the name *C. senator*. In the first and last of the works cited, suppression of *C. senator* as a dubious species is recommended, a position with which I concur, for the following reasons :

(1) The " meagre description, unfortunately, being equally applicable to more than one species, the loose verbal definition, not being limited by any illustrative reference, will not permit of any absolute certainty of identification " (Hanley, 1855). Essentially identical conclusions were reached by Deshayes & Milne-Edwards (1845) and Dodge (1953).

(2) Linnaeus did not possess a specimen. Although his diagnosis was presumably based on earlier accounts and figures, none are cited by him. No specimens were present in the Museum Ludovicae Ulricae collection, and the species is not mentioned in Linnaeus's (1764) account of that collection.

For these reasons I conclude that the name *Conus senator* Linnaeus should be suppressed as a *nomen dubium.*

The concrete proposals that I now submit to the International Commission are that it should :

(1) make use of its plenary powers to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy the following specific names, all four of which are *nomina dubia* :
  (a) *clavus* Linnaeus, 1758, as published in the combination *Conus clavus* ;
  (b) *minimus* Linnaeus, 1758, as published in the combination *Conus minimus* ;
  (c) *rusticus* Linnaeus, 1758, as published in the combination *Conus rusticus* ;
  (d) *senator* Linnaeus, 1758, as published in the combination *Conus senator* ;

(2) place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names :
  (a) *clavus* Linnaeus (1758, *Syst. Nat.* (ed. 10 : 716) as published in the combination *Conus clavus* (a name suppressed under the plenary powers in (1)(a) above) ;
  (b) *minimus* Linnaeus (1758, *Syst. Nat.* (ed. 10) : 714) as published in the combination *Conus minimus* (a name suppressed under the plenary powers in (1)(b) above) ;
  (c) *rusticus* Linnaeus (1758, *Syst. Nat.* (ed. 10) : 714) as published in the combination *Conus rusticus* (a name suppressed under the plenary powers in (1)(c) above) ;
  (d) *senator* Linnaeus (1758, *Syst. Nat.* (ed. 10) : 714) as published in the combination *Conus rusticus* (a name suppressed under the plenary powers in (1)(d) above).

CALEPHELIS GROTE AND ROBINSON, 1869, (INSECTA, LEPIDOPTERA): PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A TYPE-SPECIES IN CONFORMITY WITH CURRENT USAGE. Z.N.(S.) 1563

By Cyril F. dos Passos (*The American Museum of Natural History, New York City, N.Y., U.S.A.*)

Under suspension of the Rules (1954, Opinion 232) *Nymphidium* Fabricius, 1807, (type-species *Papilio caricae* Linnaeus, 1758) was added to the Official List of Generic Names in Zoology as Name No. 614.

2. *Nymphidia* Fab., Boisduval and LeConte, 1833 was published by those authors for a riodinid butterfly (*pumila*) from the south-eastern United States. It will be noted that Boisduval and LeConte ascribed the name *Nymphidia* to Fabricius. Diligent search has failed to reveal that Fabricius ever published the name *Nymphidia*, and it must be assumed, therefore, that Boisduval and LeConte either (1) intended to emend the name of Fabricius for which there was no necessity, or (2) made an error of typography, or (3) proposed it as a new name. The only species included by Boisduval and LeConte in *Nymphidia* when first used by them was a new species *Nymphidia pumila* Boisd. and LeConte, 1833, a southeastern United States riodinid butterfly, which is consequently the type-species of *Nymphidia*, if a valid name. However, *pumila* is a subjective synonym of *Erycina virginiensis* Guérin-Méneville [1831].

3. It is now impossible to determine why Boisduval and LeConte used the name *Nymphidia*, although they did use it several times. It has since been employed for the group of riodinid butterflies to which *virginiensis* (*pumila*) belongs, as follows:

Nymphidia Fab., Boisduval & LeConte, 1833
Morris, 1860, *Cat. Lepid. N.A.*: 13.
Morris, 1862, *Syn. Lepid. N.A.*: 103.
Grote and Robinson, 1866, *Ann. Lyc. nat. Hist. N.Y.* **8** : 351.
Grote and Robinson, 1869, *Trans. Amer. ent. Soc.* **2** : 310.
Hemming, 1934, *Generic names Holarctic butterflies.* **1** : 99, no. 250.
Neave, 1940, *Nomen. zool.* **3** : 367 [authors questioned].
Macy and Shepard, [1941], *Butterflies.*: 22, 139.

While the author believes, for reasons which need not be elaborated upon, that *Nymphidia* is a valid name, he realizes that it may be confused by some with *Nymphidium* when both names are employed for closely related species of American riodinids, and since other well- or better-known names are available for the species which would be included in *Nymphidia*, if retained, he has no objection to its suppression by the Commission and recommends that that course be followed.

4. *Calephelis* Grote and Robinson, 1869, had been used generally for the group of riodinid butterflies from the eastern United States which would be included in *Nymphidia* if valid, and *Calephelis* is an available name for those

butterflies, but for the fact that its type-species ("*caenius*"), if correctly identified by Grote and Robinson would make this generic name a subjective synonym of *Charis* Hübner, "1816" [1819], a name used for a group of South American riodinids which are generically distinct from the North American riodinids.

5. The original description of *Calephelis* Grote and Robinson, (1869) is to be found in a paper entitled "On the American butterflies referred to the genus *Charis* by Doubleday", and reads as follows :

> "Doubleday and Hewitson, (Text p. 452) retain the genus Charis *Hübner* Verzeichniss, for a generic group of Erycinidae[,] species belonging to which have been described under the genus 'Nymphidia' or 'Nymphidium' by Authors.
>
> "In the Verzeichniss, Hübner's genus is erected for two of Cramer's species unknown to us in nature. Without specimens of the South American butterflies referred to Charis by Doubleday and Hewitson, we follow these Authors in associating our two United States species with those referred to Hübner's genus, but one of which species was then known to the English Entomologists.
>
> "These species are C. caenius *Doubl. & Hewit.* (*Nymphidia pumila* Bois. & Lec.) and C. borealis (*Nymphidia borealis* G. & R.).
>
> "After giving the characters of the genus Charis, Doubleday & Hewitson remark: 'The majority of the species are further distinguished by the hirsute eyes, a character *wanting*, however, in Ch. caenius and two or three allied species. The last named species is remarkable for being the only butterfly of the family found in the United States (*l.c.*)'.
>
> "For the group so characterized, and of which our C. caenius is typical, we propose the name Calephelis. Judging from figures, indeed, we may conceive that Calephelis is entitled to be received as a distinct genus for which the term may with propriety be used. The following is a synonymy of our two species.
>
> CHARIS, *Hübner* (1816)
>
> "*Nymphidium* et *Nymphidia* Boisduval, Blanchard, Gr. & Rob., (nec Fabricius).
> *Charis* Hübner (Verzeichniss) ; E. Doubleday, Doubl. & Hewit. in part.
> *Charis* (*Calephelis*) Grote & Robinson.
>
> "Charis (Calephelis) caenius.
> "*Papilio caenius*, Linn. Syst. Nat. II. p. 796, n. 273.
> *Charis cereus*, E. Doubleday List. Lep. B.M. Pt. 2, p. 16.
> *Erycina virginiensis*, Bois. in Guerin Icon. R. Anim. Ins. t. 81, fig. 1.
> *Nymphidia pumila*, Bois. & Lec. Icon. Lep. Am. Septem. t. 37, fig. 6, 7.
> *Charis caenius*, Doubleday & Hewitson l.c. p. 453.
> *Nymphidia pumila*, Gr. & Rob. Ann. N.Y. Lyc. N.H. Vol. viii (Cot. 1866).
>
> "Our specimens were collected in Georgia by Mr. Jas. Ridings, and agree well with Boisduval's description and figures above cited".

From the foregoing description, it is clear that Grote and Robinson proposed (1) *Calephelis* for two North American riodinids, (2) that blindly following "Doubleday and Hewitson" [Doubleday and Westwood] (1881, vol. 2, pp.

452–453), they considered *Nymphidia pumila* a synonym of *C.* "*caenius*" Doubleday and Hewitson, and (3) that Doubleday and Hewitson believed that *caenius* was a North American butterfly, both of the last two assumptions being incorrect, but having influenced Grote and Robinson in misdetermining the type-species of their new genus *Calephelis*. These errors were followed by later authors.

6. Before going further into this matter it is necessary to pause and clear up some misspellings and an erroneous reference by Grote and Robinson. In following Doubleday and Hewitson, Grote and Robinson misspelled *caeneus* as "*caenius*", miscopied the reference to the original description of *caeneus*, and neglected to run it down in the "Errata" of the 1767 edition of Linnaeus, which only Doubleday appears to have done earlier [1844–1848], and then seemingly forgotten. Thus they overlooked the fact that the correct name of their type-species was *cereus*. There is no *Charis* "*caenius* Doubleday and Hewitson", but the synonymy shows that Grote and Robinson referred to *Papilio caeneus* Linnaeus. As proposed by Linnaeus, the name is *caeneus* but in the same volume under "Errata" he published a new name, *cereus*, to replace it. Linnaeus appears to have made that replacement because in 1764 he had proposed the name *Papilio caeneus* of which his second *P. caeneus* would be a primary homonym. In spite of this action by Linnaeus the name *caeneus* Linnaeus persists in the literature and is still employed by authors, including Seitz, (1917) who refers to another misspelling of this name, such as "*cenea*" without giving, however, the correct one! We are not concerned with the first *P. caeneus* which is now considered a Pierid (Kirby, p. 796). The name "*cenea*" must be ascribed to Seitz and should be added to the official Index of Rejected and Invalid Specific Names in Zoology.

7. A word must be said also about *Nymphidia pumila*, placed by Grote and Robinson in the synonymy of *C.* "*caenius*", which, as pointed out by McDunnough, (1918) is a synonym of *Erycina virginiensis* Guérin-Méneville, [1831], due to the fact there established by McDunnough that this part of the work of Guérin-Méneville was published before that of Boisduval and LeConte. As a result of these errors the correct names of these insects will henceforth be used in this paper, i.e., *cereus* Linnaeus, 1767 (=*caeneus* Linnaeus, 1767= "*caenius*" Grote and Robinson, 1867) and *virginiensis* Guérin-Méneville [1831] (=*pumila* Boisduval and LeConte, 1833).

8. From a paper published by Grote (1873) four years after he and Robinson had proposed *Calephelis*, it is evident that he then appreciated that an error had been made when they designated "*caenius*" as the type of *Calephelis* for he wrote:

> "Our two species [*virginiensis* and *borealis*] from the Atlantic District are generically distinct from the S. American forms . . . We doubt that Linnaeus intended our *N. pumila* [*virginiensis*] under his '*cereus*', '*cerea*' or '*caenius*'. We propose to designate our two species as *Cal*[*ephelis*] *pumila* [*virginiensis*] and *C. borealis*". (Matter in brackets added by present author).

As noted above, Grote and Robinson originally proposed *Calephelis* as a subgenus of *Charis* and some of the early authors published names for North

American riodinids in that genus. But that practice ceased when *Nymphidia*, *Calephelis*, and *Lephelisca* became better known. It is not believed to be necessary to pursue this matter further because all authors now agree that generic names are necessary for both North and South American riodinids and the question really is which name shall be used henceforth for *virginiensis*, *borealis* and their congeners.

9. That the type-species of *Calephelis* was misdetermined by Grote and Robinson, and that they intended the type-species to be *Nymphidia pumila* (*virginiensis*) is evident from the following facts :

(a) Grote and Robinson (1869) in their paper proposing the name *Calephelis* referred two North American riodinids to that genus, saying : " These species are *C. caenius* [*sic*] Double. & Hew. (*Nymphidia pumila* Bois. & Lec.) and *C. borealis* (*Nymphidia borealis* G. & R.) ". In the synonymy of " *caenius* " Grote and Robinson placed *Charis cereus*, *Erycina virginiensis*, and *Nymphidia pumila*, thus showing conclusively that they considered these species conspecific, when they were not, because *cereus*, properly determined, is a South American butterfly belonging to *Charis*, while *virginiensis* (*pumila*) is a North American butterfly belonging to *Nymphidia*, *Calephelis* or *Lephelisca*, as properly understood.

(b) Grote and Robinson stated that " *caenius* " (*cereus*) was typical of their new genus *Calephelis*, and that designation as the type-species has been accepted by Scudder (1875) and Barnes and Lindsey (1922).

10. *Calephelis* has been used by various authors, including check lists and catalogues, 56 times. It is true, of course, that many of the later uses of *Calephelis* were in defiance of the Code which has long prohibited an author, in cases such as this, from taking the law into his own hands until the case shall have been referred to the Commission. Such a provision is now found in Article 80 of the Code.

11. Barnes and Lindsey (1922) acting in accordance with their interpretation of Opinion 14, concluded that the type of *Calephelis* must be *caeneus* (*cereus*) and not *virginiensis* (*pumila*) which Grote and Robinson had erroneously placed as a synonym of " *caenius* ", and proposed *Lephelisca* with the type-species *Erycina virginiensis* Guérin-Méneville to take the place of *Calephelis Auct.* It would have been better for all concerned if Barnes and Lindsey had applied to the Commission to correct the erroneous type determination of Grote and Robinson. As Holland (1930) explained at some length :

> " My excellent friend, Dr. A. W. Lindsey, in the Annals of the Entomological Society of America, Vol. XV, 1922, p. 93, says :
>
> ' According to Opinion 14 of the International Rules, the type of this genus must be *caeneus* Linn. as specified by Grote and Robinson, and not *virginiensis*, which they erroneously placed as a synonym of *caeneus*, and which has been cited as the type by later writers. We are unable to find any other described genus which is applicable, and would suggest the anagram LEPHELISCA, type *Erycina virginiensis* Guer. to take the place of *Calephelis* Auct '.
>
> " With all due respect for the learning of my friend, I must register my dissent. The case dealt with in ' Opinion 14 ', does not seem to me to be

strictly analogous. In the second place there is not the slightest doubt as to the identity of the insects which Grote and Robinson intended to include in their genus *Calephelis*. It is true that recent researches have shown that the insect called *caeneus* by Linnaeus belongs to the genus *Emesis*, and was erroneously applied to the species, which Grote and Robinson had before them, but the citations in the synonymy, which they give, leave it beyond a shadow of a doubt that they designated as the type of their genus the ' Little Metal-mark ', originally designated as *virginiensis* by Gray and Guérin-Méneville, then subsequently figured by Boisduval and LeConte as *Nymphidia pumila* (Lep. Ann. Sept., 1837, figs. 6, 7). This species, the identity of which is clearly established by the descriptions and figures which Grote and Robinson cite and the true name of which is *Calephelis virginiensis* (Gray) is what Grote and Robinson speak of as ' our caenius ' (sic). At the time they wrote all writers and collectors had accepted the opinion that The Little Metal-mark of the southeastern United States should be known as ' *caeneus L.*'. The species stood thus labelled in every list, and so ticketed in every cabinet. In 1898 I figured and wrote about this insect under this name in the first edition of the Butterfly Book.

" The language used by Grote and Robinson in this connection is most explicit and decisive. After speaking at some length of the characteristics of what they, following Doubleday and Hewitson, called *caeneus L.*, but identified as being the same as *virginiensis* Guer. and *pumila* Boisd., and after pointing out the fact that the species, which they themselves had named *borealis*, was congeneric with what they called *caenius*, they say : ' For the group so characterized and of which our *caenius* is typical, we propose the name *Calephelis* '. Nothing could be clearer. They intended to erect a genus Calephelis for two strictly congeneric insects, one of them The Little Metal-mark, the other the Northern Metal-mark. The identity of the two species they intended to include in their new genus is not open to question. The fact they they erred in common with all the writers of their time, in identifying *caeneus* (L.) as being the same as *virginiensis* Gray does not affect the matter.

" I presume that Dr. Lindsey must have been in his work affected by the, to me at least, nomenclatorially heretical position announced by Dr. Barnes and F. H. Benjamin, who in the Introduction to their List of the Diurnal Lepidoptera of Boreal America, &c., say : ' In one fact, however, we have deviated from most of the previous works, and that is in considering a *specific name rather than a specific organism as the genotype* '. (The italics are mine. W.J.H.). In other words the type of a genus is not an insect, which exists in nature, but a name which may have been correctly or incorrectly applied. But what is a name ? It is a vocable applied to designate persons and things. The person or the thing intended is central in all study or discussion. " The ' specific organism ', under whatever name it may have been designated, is the real thing, the identity of which must be ascertained in the nomenclatorial court. I am, as are all true zoologists, with Abelard, a ' Conceptualist ', and hold that the terms of science are 'concepts, which while existing in our minds, express real similarities in things themselves'. In my philosophy as a naturalist, I am not a follower of Thomas Aquinas or Albertus Magnus. The word *logotype* has no place in my vocabulary. I protest against the novel attitude assumed in this matter by my excellent friend, Dr. Lindsey, and I am in thorough accord with Dr. Stichel, the latest and most careful revisionist of the *Riodinidae*, who accepts *Calephelis* Grote and Robinson as the real name for a group of real things in nature clearly pointed out by Grote and Robinson. I am compelled by my convictions to reluctantly sink *Lephelisca*, the anagrammatic 'alias' ingeniously invested by Lindsey, in the limbus of synonyms."

12. The uses of *Lephelisca* by various authors, including check lists and catalogues, are as follows:

Lephelisca Barnes & Lindsey, 1922
Barnes and Benjamin, 1926, *Bull. S. Calif. Acad. Sci.* **24** : 16
Stichel, 1928, *Zeit. wiss.* (Ins. biol.) **23** : 37
Field, 1948, *Proc. ent. Soc. Wash.* **50** : 212
Klots, 1951, *Field guide to butts.* : 122
Brown, Eff & Rotger, 1955, *Colorado butts.* (3) : 120
Kendall, "1959" [1960], *J. Lepid. Soc.* **13** : 225.

The able paper by Field, cited above, reviews this problem thoroughly but led him to the conclusion that *Lephelisca* was the valid name of the genus. Since the author is of the opinion that *Nymphidia* is the proper name but concedes that it should be suppressed and many others favour *Calephelis* the importance of a decision by the Commission is apparent. Uniformity of practice should be established.

13. To clear up some of the specific names involved in this application *Papilio cereus* Linnaeus, 1767, a replacement name for *Papilio caeneus* Linnaeus, 1767, which was a junior homonym of *Papilio caeneus* Linnaeus, 1758, should be placed on the Official Index of Rejected and Invalid Specific Names in Zoology, Similar action should be taken with respect to misspelling "*caenius*" Grote & Robinson, (1869) and "*cenea*" Seitz (1917). This latter name published by Seitz in the synonymy of "*caeneus*" may or may not be considered valid today depending upon whether Article 10(d) of the Code is construed by the Commission to be retroactive or not. This subdivision provides that "A name first published as a synonym is not thereby made available". As first published "*cenea*" was not accompanied by any description. It was used simply as an example of the many ways in which "*caenius*" had been misspelled although this particular spelling has not been found anywhere except in Seitz. But whether this name ("*cenea*") be considered a *lapsus calami* or a *nomen nudum* no harm can be done by putting it as well as "*caeneus*" on the Official Index of Rejected and Invalid Specific Names in Zoology. Anyway both of these names should also be put to rest.

14. From the foregoing it will be seen that *Nymphidia* has been used by authors 7 times, *Calephelis* 56 times and *Lephelisca* 6 times for the North American riodinid butterflies. They have uniformly been placed in the genus *Charis* Hübner. Therefore, no confusion will be caused by granting this application.

On the other hand, confusion will be avoided and stability will be obtained by reducing to one from three the names presently used for these North American riodinids. Besides, the doubtful name *Nymphidia* Boisduval and LeConte and the unnecessary *Lephelisca* will be put to rest.

15. This is a clear case of a nominal genus based upon a misidentified type-species, where the misidentification has been recognized by specialists, and where the acceptance as the type-species (of *Calephelis*) of the species to which the name (*Papilio* "*caenius*" Linnaeus, 1767) cited by the authors (Grote and Robinson) correctly applied would lead to an undesirable and confusing change in nomenclatorial practice. Accordingly, I ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to set aside all designations of type-species for the genus *Calephelis* Grote & Robinson, 1869, made prior to the decision now requested and, having done so, to designate *Erycina virginiensis* Guérin-Méneville, [1831], to be the type-species of that genus ;

(2) to place the generic name *Calephelis* Grote & Robinson, 1869 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Erycina virginiensis* Guérin-Méneville, [1831], on the Official List of Generic Names in Zoology ;

(3) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *virginiensis* Guérin-Méneville, [1831], as published in the binomen *Erycina virginiensis* (type-species of *Calephelis* Grote & Robinson, 1869) ;
  (b) *cereus* Linnaeus, 1767, as published in the binomen *Papilio cereus* ;

(4) to place the following specific names on the Official Index of Rejected and Invalid Specific Names in Zoology :
  (a) *caenius* Grote & Robinson, 1869, as published in the binomen *Charis* [*Calephelis*] *caenius* (an incorrect spelling for *cereus*, *Papilio*, Linnaeus, 1767) ;
  (b) *caeneus* Linnaeus, 1767, as published in the binomen *Papilio caeneus* (an incorrect original spelling for *cereus*, *Papilio*) ;
  (c) *cenea* Seitz, (1917), as published in the binomen *Charis cenea* (an incorrect spelling for *cereus*, *Papilio*, Linnaeus, 1767) ;

(5) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  (a) *Nymphidia* Boisduval and LeConte, 1833 (unjustified emendation or an incorrect spelling for *Nymphidium* Fabricius, 1807) ;
  (b) *Nymphidium* Boisduval and LeConte, 1833 (a junior homonym of *Nymphidium* Fabricius, 1807) ;
  (c) *Lephelisca* Barnes & Lindsey, 1922 (a junior objective synonym of *Calephelis* Grote & Robinson, 1869).

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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(*Arranged in order of election or of most recent re-election*)

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Mr. C. W. SABROSKY (*U.S. Department of Agriculture, Entomology Research Division, Washington, D.C., U.S.A.*) (28 August 1963)

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 20, Part 5 (pp. 321–400) 21st October, 1963

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the *Bulletin* :—

(1) Designation of a type-species for *Crassispira* Swainson, 1840 (Gastropoda). Z.N.(S.) 459.

(2) Suppression of *Pachygnathus* Dugès, 1834 (Arachnida, Acari). Z.N.(S.) 465.

(3) Variation of the Ruling given in Opinion 93 in so far as it concerns the generic name *Sciaena* Linnaeus, 1758 (Pisces). Z.N.(S.) 850.

(4) Suppression of *Leptophis vertebralis* Duméril, Bibron and Duméril, 1854 (Reptilia). Z.N.(S.) 1559.

(5) Suppression of *Conus candidus* Linnaeus, 1778 (Gastropoda). Z.N.(S.) 1567.

(6) Suppression of *Pleuronectes grohmanni* Bonaparte, 1837 (Pisces). Z.N.(S.) 1579.

(7) Validation of, and designation of a type-species for, *Diplectrona* Westwood, 1839 (Insecta, Trichoptera). Z.N.(S.) 1580.

(8) Validation of *Sceloporus torquatus* Wiegmann, 1828 (Reptilia). Z.N.(S.) 1582.

(9) Validation of *Ortholitha* Hübner, [1825] (Insecta, Lepidoptera). Z.N.(S.) 1585.

(10) Validation of *Krohnia* Langerhans, 1880 (Chaetognatha). Z.N.(S.) 1586.

(11) Suppression of nine specific names of Holothurioidea (Echinodermata). Z.N.(S.) 1587.

(12) Suppression of *Eoscorpius inflatus* Peach, 1882 (Arachnida). Z.N.(S.) 1588.

(13) Suppression of *Salmo curimata* Walbaum, 1792, and *Salmo immaculatus* Linnaeus, 1766, with rejection of *Curimata* Walbaum, 1792, as a generic name (Pisces). Z.N.(S.) 1590.

(14) Validation of *Tinodes pusillus* McLachlan, 1862 (Insecta, Trichoptera). Z.N.(S.) 1592.

(15) Rejection of the neotype and type-locality of *Thamnophis sirtalis* (Linnaeus), 1758 (Reptilia). Z.N.(S.) 1600.

c/o British Museum (Natural History),
Cromwell Road,
London, S.W.7, England.
14 *June* 1963.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature

OPINION 672

XENOSTEGIUM WALCOTT, 1924 (TRILOBITA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Xenostegium* Walcott, 1924, made prior to the present Ruling, are hereby set aside and the nominal species *Megalaspis belemnurus* White, 1874, is hereby designated to be the type-species of that genus.

(2) The generic name *Xenostegium* Walcott, 1924 (gender : neuter), type-species, by designation under the plenary powers in (1) above, *Megalaspis belemnurus* White, 1874, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1551.

(3) The specific name *belemnurus* White, 1874, as published in the binomen *Megalaspis belemnurus* (type-species of *Xenostegium* Walcott, 1924) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1927.

HISTORY OF THE CASE (Z.N.(S.) 914)

The present case was submitted to the Office of the Commission by Dr. R. J. Ross, Jr., in February 1955. The application was sent to the printer on 20 June 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 332–333. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two palaeontological serials. Dr. Ross's proposals were supported by Dr. Alan B. Shaw, Prof. H. B. Whittington and Dr. J. T. Temple (*Bull. zool. Nomencl.* **19** : 147).

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)32 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 332–333. At the close of the prescribed Voting Period on 25 October 1962 the state of the Voting was as follows :

Affirmative Votes—twenty-five (25), received in the following order : China, Holthuis, Obruchev, Riley, Evans, Mayr, Key, Uchida, Binder, do Amaral, Miller, Jaczewski, Boschma, Lemche, Vokes, Tortonese, Stoll, Hering, Borchsenius, Brinck, Kühnelt, Mertens, Poll, Alvarado, Bonnet.

Negative Votes—none (0).

On Leave of Absence—three (3) : Bradley, Munroe, Prantl.

Voting Papers not returned—one (1) : Hemming.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists by the Ruling given in the present Opinion :

belemnurus, *Megalaspis*, White, 1874, U.S. Army, *Geogr. Geol. Expl. Surv. W.* 100*th Meridian*, *Prelim. Rept. Invert. Foss.* : 11

Xenostegium Walcott, 1924, *Smiths. misc. Coll.* **75**(2) : 60, pl. 13, fig. 5

CERTIFICATE

I certify that the votes cast on Voting Paper (62)32 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 672.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
13 *November* 1962

OPINION 673

JOUSSEAUMIA SACCO, 1894 (GASTROPODA) : EMENDATION UNDER THE PLENARY POWERS TO *JOUSSEAUMEA*

RULING.—(1) Under the plenary powers the emendation to *Jousseaumea*, of the generic name *Jousseaumia* Sacco, 1894, is hereby validated.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Jousseaumea* (emend. under the plenary powers of *Jousseaumia*) Sacco, 1894 (gender : feminine), type-species, by monotypy, *Cypraea sublyncoides* d'Orbigny, 1852 (Name No. 1552) (Class Gastropoda) ;

(b) *Salmoneus* Holthuis, 1955 (gender : masculine), type-species, by original designation, *Jousseaumea serratidigitus* Coutière, 1897 (Name No. 1553) (Class Crustacea, Order Decapoda).

(3) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified :

(a) *Jousseaumea* Coutière, 1897 (a junior homonym of *Jousseaumea* Sacco, 1894) (Name No. 1644) ;

(b) *Jousseaumia* Sacco, 1894 (ruled under the plenary powers to be an incorrect original spelling for *Jousseaumea*) (Name No. 1645).

(4) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *sublyncoides* d'Orbigny, 1852, as published in the binomen *Cypraea sublyncoides* (type-species of *Jousseaumea* Sacco, 1894) (Name No. 1928) ;

(b) *serratidigitus* Coutière, 1897, as published in the binomen *Jousseaumea serratidigitus* (type-species of *Salmoneus* Holthuis, 1955) (Name No. 1929).

HISTORY OF THE CASE (Z.N.(S.) 624)

The present case was first submitted to the office of the Commission by Dr. L. B. Holthuis in February 1952. In April 1961 Dr. Holthuis redrafted his application, taking into account the recent amendations to the International Code. The revised application was sent to the printer on 20 June 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 326–327. Public notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to two conchological serials. No objection was received.

DECISION OF THE COMMISSION

On 25 July 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)31 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 327. At the close of the prescribed Voting Period on 25 October 1962 the state of the voting was as follows :

Affirmative Votes—twenty (20), received in the following order : China, Holthuis, Riley, Obruchev, Evans, Mayr, Jaczewski, Uchida, do Amaral, Miller, Boschma, Tortonese, Stoll, Hering, Borchsenius, Brinck, Kühnelt, Poll, Bonnet, Alvarado.

Negative Votes—five(5) : Key, Binder, Lemche, Vokes, Mertens.

On Leave of Absence—three (3) : Bradley, Munroe, Prantl.

Voting Papers not returned—one (1) : Hemming.

The following comments were returned by Commissioners with their votes :

Dr. K. H. L. Key (31.viii.62) : " I cannot agree that a case has been made for use of the plenary powers to validate the emendation from *Jousseaumia* Sacco to *Jousseaumea*. The applicant's references to the ' incorrect ' formation of the name *Jousseaumia* and the ' confusion ' that would occur between this and *Jousseaumea* Coutière are irrelevant. In these respects the situation in the present case is no different from what it would be in any case of a linguistic error sanctioned by the Code and in many cases of generic names differing by a single letter. One can only justify suspension of the Code in cases where a principle that works satisfactorily in general has special objections in a particular case.

" The only special objection cited by the applicant is that the emendation *Jousseaumea* Sacco has been accepted by the leading authorities in the field. As against this, however, it must be supposed that *Jousseaumea* Coutière was also accepted until the recent introduction of *Salmoneus*, of which we are only told that it ' has already been used by a few authors '.

" Normal operation of the Code would result in a change from the accepted but invalid *Jousseaumea* Sacco to *Jousseaumia* Sacco. Use of the plenary powers as requested would result in a change from the accepted and valid *Jousseaumea* Coutière to *Salmoneus* Holthuis. If the second course has any advantage over the first, it is, in my opinion, certainly not of the order required to justify suspension of the Code."

Dr. E. Binder (6.ix.62) : " Le role de la Commission est d'autoriser des exceptions à l'application du Code dans l'intérêt de la stabilité, ce qui n'est pas le cas ici : la conservation d'une émendation futile nécessiterait le changement d'un nom de genre datant de 1896 (*Jousseaumea* Coutière)."

Dr. H. Lemche (3.x.62) : " It appears undesirable to vary the Rules in order to give validity to a misspelling in a case where no real confusion can be imagined to arise."

Dr. H. E. Vokes (8.x.62) : " (1) *Jousseaumia* Sacco, 1894, and *Jousseaumea* Coutière, 1897, are not homonyms, and correctly pronounced do not even sound alike since the final ' *e* ' of Jousseaume is silent. The emendation by Schilder was invalid, since even if we allowed the correction of the stem name, the correct emendation to assure the pronunciation intended by Sacco would have spelled it '*Jousseaumeia*'.

" (2) *Jousseaumia* Sacco apparently represents a very small group of fossil species only. Thiele, as indicated in the application, did accept and apply the name stating that it included one fossil and three recent species, but mentioning only *isabella* by name. This species was made type of *Basilitrona* by Iredale in 1930, and was referred to *Luria* (*Basilitrona*) by Schilder in 1932 (*Foss. Catal.*, 1, 55, p. 147) and to *Basilitrona* as a genus in 1933 (*Bernice P. Bishop Mus.*, X, 13) [I have not seen this last and give it as of Adam & Leloup 1938, *Mem. Mus. Roy. d'Hist. nat. Belgique* (2)2(19), p. 131, who also use *Luria* (*Basilitrona*)]. It seems most probable, though I have not seen specimens, that all but the fossil type-species of *Jousseaumia* are to be referred to *Basilitrona*.

" On the other hand I have been told that there is a rather large group of species referred to *Jousseaumea* Coutière and that while Holthuis's proposal of *Salmoneus* was made in a detailed key that probably will receive wide acceptance, the change of name will result in a degree of confusion that seems to me wholly unnecessary."

Dr. R. Alvarado (25.x.62) : " The names concerned (and the form *Jousseaumeia*—perhaps more correct) should not be considered homonyms strictly speaking (Art. 56), but in this case I strongly support the proposals."

Dr. Holthuis, on being sent copies of the comments reproduced above sent the following note to the Secretary : " My proposal was sent in as early as September 1951 in order to settle the status of *Jousseaumia* before publishing my checklist of the genera of Caridea (which came out in 1955) ; however, the publication of my proposal was delayed, and so the name *Salmoneus* was introduced in my checklist. Mr. Hemming and I discussed my proposal and I still think that our final wording of it was best. Neither of the two generic names is widely used, while the name *Jousseaumia* for the Mollusc genus, in its emended form *Jousseaumea*, has entered handbooks like Thiele's. The name *Jousseaumea* for the Crustacean before 1955 was used (according to my bibliography of Decapoda Macrura) by 9 authors and after 1955 by none : the name *Salmoneus*, which was proposed by me in 1955, was used since that time by 4 authors, two of whom used the name *Jousseaumea* before 1955.

" I believe that the suppression of the name *Jousseaumea* Coutière, 1897, is the best way to safeguard the continuation of the current use of the names of the two taxa, and also prevent the rather awkward situation of having the name *Jousseaumea* and *Jousseaumia* side by side."

ORIGINAL REFERENCES

The following are the original references for the names placed on the Official Lists and Index by the Ruling given in the present Opinion :

Jousseaumea Coutière, 1897, *Bull. Mus. Hist. nat.*, Paris **2** : 381
Jousseaumea Sacco, 1894, *Moll. terz. Piedmonte Liguria* **15** : 8
Jousseaumia Sacco, 1894, an incorrect original spelling for *Jousseaumea* q.v.
serratidigitus, *Jousseaumea*, Coutière, 1897, *Bull. Mus. Hist. nat.*, Paris **2** : 382
Salmoneus Holthuis, 1955, *Zool. Verh.*, Leiden **26** : 88
sublyncoides, *Cypraea*, d'Orbigny, 1852, *Prodr. Pal.* **3** : 48

CERTIFICATE

I certify that the votes cast on Voting Paper (62)31 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted

under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 673.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
21 *November* 1962

OPINION 674

ACROPORA OKEN, 1815 (ANTHOZOA, MADREPORARIA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Acropora* Oken, 1815, is hereby validated with the type-species *Millepora muricata* Linnaeus, 1758.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified :

(a) *Acropora* Oken, 1815 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Millepora muricata* Linnaeus, 1758 (Name No. 1554) ;

(b) *Madrepora* Linnaeus, 1758 (gender : feminine), type-species, by designation by Verrill, 1901, *Madrepora oculata* Linnaeus, 1758 (Name No. 1555).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified :

(a) *muricata* Linnaeus, 1758, as published in the binomen *Millepora muricata* (type-species of *Acropora* Oken, 1815) (Name No. 1930) ;

(b) *oculata* Linnaeus, 1758, as published in the binomen *Madrepora oculata* (type-species of *Madrepora* Linnaeus, 1758) (Name No. 1931).

(4) The generic name *Heteropora* Hemprich & Ehrenberg (1834) (a junior homonym of *Heteropora* Blainville, 1830) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1646.

(5) The family-group name ACROPORIDAE Verrill, 1901 (type-genus *Acropora* Oken, 1815) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 348.

HISTORY OF THE CASE (Z.N.(S.) 1036)

The present case was first submitted to the office of the Commission by Professor H. Boschma in February 1956. An amended version of Professor Boschma's application was sent to the printer on 6 April 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 334–335. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56). No objection was received.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)34 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 335. At the close of the prescribed Voting Period on 3 January 1963 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : China, Lemche, Holthuis, Stoll, Mayr, Hering, Borchsenius, Munroe, Bonnet, Obruchev, Uchida, Riley, Binder, Jaczewski, Alvarado, Vokes, Brinck, Key, Bradley, do Amaral, Evans, Kühnelt, Mertens.

Negative Votes—none (0).

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—three (3) : Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion :

Acropora Oken, 1815, *Lehrb. Naturgesch.* **3**(1) : 66
ACROPORIDAE Verrill, 1901, *Trans. Connecticut Acad. Arts Sci.* **11** : 163
Heteropora Hemprich & Ehrenberg, (1834), *Abh. K.-preuss. Akad. Wiss.*, Berlin **1832** : 332
Madrepora Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 793
muricata, *Millepora*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 792
oculata, *Madrepora*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 798

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling :

For *Madrepora* Linnaeus, 1758 : Verrill, 1901, *Trans. Connecticut Acad. Arts Sci.* **11** : 111

CERTIFICATE

I certify that the votes cast on Voting Paper (62)34 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 674.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
11 *January* 1963

OPINION 675

CRABRO BICINCTUS ROSSI, 1794 (INSECTA, HYMENOPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the specific name *bicinctus* Fabricius, 1793, as published in the binomen *Crabro bicinctus*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy.

(2) The generic name *Lestiphorus* Lepeletier, 1832 (gender: masculine), type-species, by monotypy, *Crabro bicinctus* Rossi, 1794, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1556.

(3) The specific name *bicinctus* Rossi, 1794, as published in the binomen *Crabro bicinctus* (type-species of *Lestiphorus* Lepeletier, 1832) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1932.

(4) The specific name *bicinctus* Fabricius, 1793, as published in the binomen *Crabro bicinctus* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 762.

HISTORY OF THE CASE (Z.N.(S.) 1440)

The present case was submitted to the Office of the Commission by Dr. J. van der Vecht in September 1959. The application was sent to the printer on 17 January 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 340–341. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. No objection was received.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)37 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 341. At the close of the prescribed Voting Period on 3 January 1963 the state of the voting was as follows:

Affirmative Votes—twenty-three (23), received in the following order: China, Lemche, Holthuis, Stoll, Mayr, Hering, Borchsenius, Munroe, Bonnet, Obruchev, Uchida, Riley, Binder, Alvarado, Vokes, Brinck, Key, Bradley, do Amaral, Jaczewski, Evans, Kühnelt, Mertens.

Negative Votes—none(0)

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—three (3): Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes.

Original References

The following are the original references for names placed on the Official Lists and Index by the Ruling given in the present Opinion :

bicinctus, Crabro, Fabricius, 1793, *Ent. syst.* 2 : 299
bicinctus, Crabro, Rossi, 1794, *Fauna Etrusca* 2, Appendix: 123, pl. 7, fig. /0
Lestiphorus Lepeletier, 1832, *Ann. Soc. ent. France* 1 : 56a, 70

CERTIFICATE

I certify that the votes cast on Voting Paper (62)37 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 675.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
11 *January* 1963

OPINION 676

PAMERA SAY, 1831 (INSECTA, HEMIPTERA): SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Pamera* Say, 1831, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Aphanus* Laporte, 1833 (gender: masculine), type-species, by designation by Kirkaldy, 1900, *Cimex rolandri* Linnaeus, 1758 (Name No. 1557);
(b) *Rhyparochromus* Hahn, 1826 (gender: masculine), type-species, by monotypy, *Cimex pini* Linnaeus, 1758 (Name No. 1558);
(c) *Megalonotus* Fieber, [1860] (gender: masculine), type-species, by designation by China, 1941, *Lygaeus chiragra* Fabricius, 1794 (Name No. 1559).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *rolandri* Linnaeus, 1758, as published in the binomen *Cimex rolandri* (type-species of *Aphanus* Laporte, 1833) (Name No. 1933);
(b) *pini* Linnaeus, 1758, as published in the binomen *Cimex pini* (type-species of *Rhyparochromus* Hahn, 1826) (Name No. 1934);
(c) *chiragra* Fabricius, 1794, as published in the binomen *Lygaeus chiragra* (type-species of *Megalonotus* Fieber, [1860]) (Name No. 1935).

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Pamera* Say, 1831 (as suppressed under the plenary powers in (1) above) (Name No. 1647);
(b) *Amyctus* Gistl, 1848 (a junior objective synonym of *Aphanus* Laporte, 1833) (Name No. 1648);
(c) *Calyptonotus* Douglas & Scott, 1865 (a junior objective synonym of *Aphanus* Laporte, 1833) (Name No. 1649);
(d) *Pachymerus* Lepeletier & Serville, 1825 (a junior homonym of *Pachymerus* Thunberg, 1805) (Name No. 1650).

(5) The following family-group names are hereby placed on the Official List of Family-Group Names in Zoology with the Name Numbers specified:

(a) RHYPAROCHROMINAE Amyot & Serville, 1843 (type-genus *Rhyparochromus* Hahn, 1826) (Name No. 349);
(b) MEGALONOTINI Slater, 1957 (type-genus *Megalonotus* Fieber, [1860]) (Name No. 350).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) RHYPAROCHROMIDES Amyot & Serville, 1843 (type-genus *Rhyparochromus* Hahn, 1826) (an incorrect original spelling for RHYPAROCHROMINAE) (Name No. 369);
(b) RHYPAROCHROMIDA Stål, 1862 (type-genus *Rhyparochromus* Hahn, 1826) (an incorrect spelling for RHYPAROCHROMINAE Amyot & Serville, 1843) (Name No. 370);
(c) RHYPAROCHROMINA Stål, 1870 (type-genus *Rhyparochromus* Hahn, 1826) (an incorrect spelling for RHYPAROCHROMINAE Amyot & Serville, 1843) (Name No. 371);
(d) PACHYMERIDES Baerensprung, 1860 (type-genus *Pachymerus* Lepeletier & Serville, 1825) (invalid because the name of the type-genus is a junior homonym) (Name No. 372);
(e) APHANIDAE Lethierry & Severin, 1894 (type-genus *Aphanus* auct.) (invalid because based on a misidentified type-genus) (Name No. 373).

HISTORY OF THE CASE (Z.N.(S.) 1469)

The present case was first submitted to the Commission Office by Dr. J. A. Slater and Dr. W. E. China in November 1960. The application was sent to the printer in January 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 342–345. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. T. Jaczewski and Dr. E. Wagner.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)38 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 344–345. At the close of the prescribed voting period on 3 January 1963 the state of the voting was as follows:

Affirmative Votes—twenty-two (22), received in the following order: China, Lemche, Holthuis, Stoll, Mayr, Hering, Borchsenius, Bonnet, Obruchev, Uchida, Riley, Binder, Munroe, Jaczewski, Alvarado, Vokes, Brinck, Key, Bradley, do Amaral, Evans, Kühnelt.

Negative Votes—one (1): Mertens.

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—three (3): Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Amyctus Gistl, 1848, *Nat. Thierr* : x.
Aphanus Laporte, 1833, *Mag. Zool.* **2**, Suppl. : 35
APHANIDAE Lethierry & Severin, 1894, *Cat. gén. Hémipt.* **2** : 188

Calyptonotus Douglas & Scott, 1865, *Brit. Hemipt.* **1** : 471
chiragra, Lygaeus, Fabricius, 1794, *Ent. syst.* **4** : 168
Megalonotus Fieber, [1860], *Europ. Hemipt.* : 181
MEGALONOTINI Slater, 1957, *Bull. Brooklyn Ent. Soc.* **52** : 35
Pachymerus Lepeletier & Serville, 1825, *Ency. méth.* **10**(1) : 322
PACHYMERIDES Baerensprung, 1860, *Berlin Ent. Zeit.* **4** : 9
Pamera Say, 1831, *Descr. n. sp. Het. Hemipt. N. Amer.*, New Harmony, Indiana : 15
pini, Cimex, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 448
RHYPAROCHROMIDA Stål, 1862, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **1862** : 213
RHYPAROCHROMIDES Amyot & Serville, 1843, an incorrect original spelling for RHYPAROCHROMINAE q.v.
RHYPAROCHROMINA Stål, 1870, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **1870** : 663
RHYPAROCHROMINAE Amyot & Serville, 1843, *Hist. nat. Ins.*, Hémipt. : 251
Rhyparochromus Hahn, 1826, *Icones Mon. Cimicum* : fasc. 1
rolandri, Cimex, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 448

The following are the original references for the designation of type-species for two genera concerned in the present Ruling :

For *Aphanus* Laporte, 1833 : Kirkaldy, 1900, *Entomologist* **33** (448) : 241
For *Megalonotus* Fieber, [1860] : China, 1941, *Proc. R. ent. Soc. Lond.* (B) **10** : 130

CERTIFICATE

I certify that the votes cast on Voting Paper (62)38 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 676.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
15 *January* 1963

OPINION 677

APHIS LINNAEUS, 1758 (INSECTA, HEMIPTERA): DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS AND ADDITION OF APHIDIDAE TO THE OFFICIAL LIST

RULING.—(1) Under the plenary powers all designations of type-species for the nominal genus *Aphis* Linnaeus, 1758, made prior to the present Ruling, are hereby set aside and the nominal species *Aphis sambuci* Linnaeus, 1758, is hereby designated to be the type-species of that genus.

(2) The generic name *Aphis* Linnaeus, 1758 (gender: feminine), type-species, by designation under the plenary powers in (1) above, *Aphis sambuci* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1560.

(3) The specific name *sambuci* Linnaeus, 1758, as published in the binomen *Aphis sambuci* (type-species of *Aphis* Linnaeus, 1758) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1936.

(4) The family-group name APHIDIDAE (correction of APHIDII) Latreille, [1802–1803] (type-genus *Aphis* Linnaeus, 1758) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 351.

(5) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) APHIDII Latreille, [1802–1803] (type-genus *Aphis* Linnaeus, 1758) (an incorrect original spelling for APHIDIDAE) (Name No. 374);
(b) APHIDAE [Leach, 1815] (type-genus *Aphis* Linnaeus, 1758) (an incorrect spelling for APHIDIDAE Latreille, [1802–1803]) (Name No. 375);
(c) APHIIDAE Baker, 1921 (type-genus *Aphis* Linnaeus, 1758) (an incorrect spelling for APHIDIDAE Latreille, [1802–1803]) (Name No. 376);
(d) APHIDINA Burmeister, 1835 (type-genus *Aphis* Linnaeus, 1758) (an incorrect spelling for APHIDIDAE Latreille, [1802–1803]) (Name No. 377).

HISTORY OF THE CASE (Z.N.(S.) 881)

The present case was submitted to the Commission in the form of a Report prepared by Dr. W. E. China, Assistant Secretary to the Commission, and sent to the printer on 27 June 1960. A full account of the previous history of the case may be found in that Report which was published on 16 June 1961 in *Bull. zool. Nomencl.* **18** : 177–180. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. Comments, concerned mainly with the form of the family-group name based on *Aphis* Linnaeus, were made by Frej Ossiannilsson (*Bull. zool. Nomencl.* **18** : 352; **19** : 197), Miriam A. Palmer (*Bull. zool. Nomencl.* **19** : 47), Louise M. Russell, Clyde F. Smith,

Mortimer D. Leonard, George F. Knowlton, George A. Schaefer, A. N. Tissot, Miriam A. Palmer, M. E. MacGillivray (*Bull. zool. Nomencl.* **19** : 195–198), D. Hille Ris Lambers, James B. Kring, Esmat A. Elkady (*Bull. zool. Nomencl.* **19** : 273), G. B. Orlob and F. C. Hottes.

DECISION OF THE COMMISSION

On 3 October 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)40 : (A) either for or against the proposals set out in para. 11(1)–(3) in *Bull. zool. Nomencl.* **19** : 180 ; (B) for the addition of either APHIDAE or APHIDIDAE to the Official List of Family-Group Names. At the close of the prescribed Voting Period on 3 January 1963 the state of the voting was as follows :

Part A. Affirmative Votes—twenty-three (23), received in the following order : China, Lemche, Holthuis, Stoll, Mayr, Hering, Munroe, Borchsenius, Bonnet, Obruchev, Uchida, Riley, Binder, Alvarado, Vokes, Key, Brinck, Bradley, do Amaral, Jaczewski, Evans, Kühnelt, Mertens.

Negative Votes—none (0).

Part B. Votes for APHIDIDAE—fourteen (14) : China, Lemche, Holthuis, Munroe, Bonnet, Uchida, Binder, Alvarado, Vokes, Brinck, do Amaral, Jaczewski, Evans, Mertens.

Votes for APHIDAE—nine (9) : Stoll, Mayr, Hering, Borchsenius, Obruchev, Riley, Key, Bradley, Kühnelt.

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—three (3) : Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes in Part A, voting for APHIDAE in Part B.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Index by the Ruling given in the present Opinion :

APHIDAE [Leach, 1815] *in* Brewster's *Edinb. Ency.* **9** : 125–126
APHIDIDAE Latreille, [1802–1803], *Hist. nat. gén. partic. Anim. Crust. Ins.* **3** : 263
APHIDII Latreille, [1802–1803], an incorrect original spelling for APHIDIDAE q.v.
APHIDINA Burmeister, 1835, *Handb. Ent.* **2** : 85
APHIIDAE Baker, 1921, *Proc. ent. Soc. Washington* **23** : 101
Aphis Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 451
sambuci, Aphis, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 451

CERTIFICATE

I certify that the votes cast on Voting Paper (62)40 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted

under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 677.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
15 *January* 1962

OPINION 678

THE SUPPRESSION UNDER THE PLENARY POWERS OF THE PAMPHLET PUBLISHED BY MEIGEN, 1800

RULING.—(1) Under the plenary powers:

(a) the pamphlet published by J. W. Meigen, 1800, entitled *Nouvelle Classification des Mouches à Deux Ailes*, is hereby suppressed for the purposes of zoological nomenclature;

(b) the following generic names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(i) *Euphrosyne* Gray, 1866;
(ii) *Phryne* Herrich-Schaeffer, [1844];
(iii) *Melusina* Stål, 1867;
(iv) *Atalanta* Stål, 1861;
(v) *Antiope* Alder & Hancock, 1848;
(vi) *Cinxia* Stål, 1862;
(vii) *Zelima* Fabricius, 1807.

(2) The following work is hereby placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title No. 66:
Meigen (J.W.), 1800, *Nouvelle Classification des Mouches à Deux Ailes*. Paris. (a work suppressed under the plenary powers in (1)(a) above).

(3) The following generic names, as suppressed under the plenary powers in (1)(b) above, are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Euphrosyne* Gray, 1866 (Name No. 1651);
(b) *Phryne* Herrich-Schaeffer, [1844] (Name No. 1652);
(c) *Melusina* Stål, 1867 (Name No. 1653);
(d) *Atalanta* Stål, 1861 (Name No. 1654);
(e) *Antiope* Alder & Hancock, 1848 (Name No. 1655);
(f) *Cinxia* Stål, 1862 (Name No. 1656);
(g) *Zelima* Fabricius, 1807 (Name No. 1657).

HISTORY OF THE CASE. (Z.N.(S.) 191)

A full history of the case up to the end of 1960 is given in the Report prepared by Mr. R. V. Melville, then Assistant Secretary to the Commission, which was published on 5 December 1960 in *Bull. zool. Nomencl.* **18** : 9–64, together with an explanatory Foreword by Mr. N. D. Riley. The following Secretary's Note was sent to Commissioners with Voting Paper (62)24:

"When Mr. Melville's report (*Bull. zool. Nomencl.* **18** : 9–64) on this exasperating case was published I prefaced it with a note pointing out certain irregularities in a previous vote, to which President J. Chester Bradley had called my attention. The present call for a vote is necessitated by the fact that objections (as was anticipated) have indeed been received to the proposals embodied in that report. These have been duly published; and the attention of Commissioners is insistently drawn to them (*Bull. zool. Nomencl.* **18** : 227, 229, 296, 382, 384). The most important of these objections was received from Mr. Sabrosky himself, who originated the proposal (*Bull. zool. Nomencl.* **6** : 131–141) that Meigen's disputed work of 1800 should be suppressed.

" Whatever is the decision of the Commission in respect of the vote now called for, I would beg Commissioners to bear in mind the fact that the Secretariat, in its present greatly reduced state, cannot possibly undertake to pursue to their ultimate conclusions all the consequential matters of a nomenclatural nature that may arise. Article 81 of the Code is relevant. The Secretariat must rely upon specialists themselves to submit applications in respect of such matters.

" The alternatives now placed before the Commission are as follows :

" In Part 1 of the accompanying Voting Paper Commissioners are asked to vote either for or against the use of the plenary powers to reject the Meigen 1800 names.

" In Part 2 Commissioners having voted in the affirmative in Part 1 are asked to vote for one of two alternatives (Mr. Sabrosky having agreed to drop his proposal (*Bull. zool. Nomencl.* **18** : 227) that the pamphlet should be suppressed for Priority only).

"Alternative A is Mr. Sabrosky's original proposal to suppress the pamphlet for all purposes. All that needs doing then is to further suppress, for the purposes of the Law of Priority only, those 6 junior homonyms of suppressed Meigen names which would thus be rendered valid senior synonyms of well-known names. These homonyms are :

Euphrosyne Gray, 1866 (Mammalia)
Phryne Herrich-Schaeffer, [1844] (Lepidoptera)
Melusina Stål, 1867 (Hemiptera)
Atalanta Stål, 1861 (Hemiptera)
Antiope Alder & Hancock, 1848 (Gastropoda)
Cinxia Stål, 1862 (Hemiptera).

"Alternative B is the detailed proposals contained in Mr. Melville's report."

DECISION OF THE COMMISSION

On 31 May 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)24, in Part 1, either for or against the use of the plenary powers to reject the Meigen 1800 names, and in Part 2, either for Alternative A or for Alternative B (as described in the accompanying note). At the close of the prescribed Voting Period on 31 August 1962 the state of the voting was as follows :

Part 1. Affirmative Votes—twenty-four (24), received in the following order : Hering, China, Boschma, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Bonnet, Alvarado, Brinck, Key, Uchida, Borchsenius, Obruchev, Tortonese, Hemming, Jaczewski, Binder, Mertens, Kühnelt.

Negative Votes—none (0).

Part 2. For Alternative A—twenty (20) : Hering, China, Boschma, Holthuis, Mayr, Riley, Vokes, Lemche, do Amaral, Munroe, Stoll, Alvarado, Brinck, Key, Uchida, Borchsenius, Obruchev, Jaczewski, Binder, Mertens.

For Alternative B—four (4) : Bonnet, Tortonese, Hemming, Kühnelt.

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—two (2) : Evans, Poll.

Commissioners Bradley and Miller returned late votes in favour of the use of the plenary powers and Alternative A.

In returning his Voting Paper Commissioner Francis Hemming made the following comment : " In returning this Voting Paper I wish to express the strong hope that, when voting on Part 2, the Commission will approve Alternative B rather than Alternative A, for, apart from the fact that Alternative B has the advantage of being much more complete and comprehensive, it would, I feel, be unfortunate if the effect of the Commission's decision were to invalidate the new names in Meigen's *Nouvelle Classification* for all purposes, since many of those names have been used extensively since the publication of Hendel's paper now over fifty years ago and it would be likely to give rise to serious and unnecessary confusion if as the result of the decision now to be taken those names—through not having been kept alive for the purposes of homonymy—could now validly be introduced as the names for new genera in any part of the animal kingdom.

"Although nothing on the question is expressly stated in Alternative A, I hope that that Alternative is to be interpreted as involving the addition to the Official Indexes of the title of Meigen's *Nouvelle Classification* and of the new generic names proposed in the *Nouvelle Classification*, together with the six other generic names specified at the end of Alternative A in the Voting Paper. (I am glad to note that the name *Phryne* Herrich-Schaeffer, about which I submitted a separate request as a lepidopterist when this case was in preparation, is included in the supplementary list of names to be suppressed, for it would be very undesirable if this name had to replace the well-known name *Triphysa* Zeller.) "

On the 29 August 1962, the Acting Secretary to the Commission received the following further letter from Mr. Hemming : " If the Commission decides in favour of the simpler of the two alternative solutions put before it in the " Meigen 1800 " case, i.e. Alternative A in the note which you circulated. I hope it may be possible to add one more name to the short list there given of post-Meigen names in other Orders which are at present invalid as junior homonyms of " Meigen 1800 " names, but which would come to life, unless some special action is taken to prevent this from happening.

" The name which I should like to see added to the list of names to be suppressed is : *Zelima* Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 279. The above name was replaced by the name *Ailus* by Billberg as long ago as 1820 (*Enum.* : 81) and it would be confusing and embarrassing if, as the result of action taken on the Meigen Diptera case, the name *Zelima* in Lepidoptera were to become available. I hope therefore that this name will be suppressed—and placed on the Official Index—at the same time as the other names enumerated in your list. Riley, as a lepidopterist, supports this suggestion."

On 3 October 1962 the Members of the Commission, having been informed of the matter raised by Commissioner Hemming, were invited to vote under the Three-Month Rule on Voting Paper (62)41 either for or against the suppression under the plenary powers of the generic name *Zelima* Fabricius, 1807. At the close of the prescribed Voting Period on 3 January 1963 the state of the voting was as follows :

Affirmative Votes—twenty-three (23), received in the following order : China, Lemche, Holthuis, Stoll, Mayr, Hering, Borchsenius, Munroe, Bonnet, Obruchev, Uchida, Riley, Binder, Alvarado, Vokes, Brinck, Key, Bradley, do Amaral, Evans, Jaczewski, Kühnelt, Mertens.

Negative Votes—none (0).

On Leave of Absence—one (1) : Prantl.

Voting Papers not returned—three (3) : Hemming, Poll, Tortonese.

Commissioners Boschma and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for the names places on the Official Index by the Ruling given in the present Opinion :

Antiope Alder & Hancock, 1848, *Ann. Mag. nat. Hist.* (2) **1** : 190
Atalanta Stål, 1861, *Stettin ent. Z.* **22** : 149
Cinxia Stål, 1862, *Stettin ent. Z.* **23** : 105
Euphrosyne Gray, 1866, *Proc. zool. Soc. Lond.* 1866 : 214
Melusina Stål, 1867, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **24** : 552
Phryne Herrich-Schaeffer, [1844], *Schmett. Europ.* **1** : 90
Zelima Fabricius, 1807, *Mag. f. Insektenk.* (Illiger) **6** : 279

CERTIFICATE

I certify that the votes cast on Voting Papers (62)24 and (62)41 were cast as set out above, that the proposals set out in those Voting Papers have been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 678.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
12 *November* 1962

DIRECTION 105

BRISSON, 1760, *ORNITHOLOGIE*: RESTRICTION TO CERTAIN PORTIONS OF THAT WORK OF THE VALIDATION GRANTED UNDER THE PLENARY POWERS

RULING.—(1) The decision taken in 1948 to grant availability under the Rules to new generic names for birds introduced by Brisson (M. J.) in the work entitled in French " Ornithologie " and in Latin " Ornithologia " is hereby restricted to those generic names which appear in Latin in the *Tabula synoptica Avium secundum Ordines* reproduced on the left-hand pages (bearing even numbers) in the series of pages numbered 26–61 in volume 1 of that work. For this purpose the decision taken in 1948, as set out in the Official Record (*Bull. zool. Nomencl.* **4** : 65–66) is to be read as though : (a) the words " Volume 1, pages bearing even numbers in the series of pages numbered 26–61, containing the Latin text of the *Tabula synoptica Avium secundum Ordines* there given " were inserted after the word " Ordines " in line 5 of point (iv) on page 65 ; and (b) the words " part of " were inserted between the words " generic names in " and the word " which " in line 6 of point (iv) on page 65.

(2) The entry relating to the foregoing work by Brisson made on the Official List of Works Approved as Available for Zoological Nomenclature by the Ruling given in Direction 16 is hereby amended by the following insertion : " (the only names in this work available for zoological nomenclature being the generic names introduced in volume 1 on the pages bearing even numbers in the series of pages numbered 26–61 containing the Latin text of the *Tabula synoptica Avium secundum Ordines*) ".

HISTORY OF THE CASE (Z.N.(S.) 702)

A full history of the present case is given in the Report prepared by Mr. Francis Hemming, formerly Secretary to the International Commission. Mr. Hemming's Report was sent to the printer on 20 June 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 9–14. The proposals were supported by Professor Ernst Mayr.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)49 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 13–14. At the close of the prescribed Voting Period on 6 February 1963 the state of the voting was as follows :

Affirmative Votes—twenty-four (24), received in the following order : China, Holthuis, Hering, Vokes, Brinck, Stoll, Mayr, Riley, Bradley, Lemche, do Amaral, Jaczewski, Uchida, Key, Obruchev, Boschma, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative Votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—two (2): Hemming, Munroe.

Commissioner Borchsenius abstained from voting.

Commissioner Mayr, in returning his vote made the following comment: "I vote for the proposal provided it is made clear in the Opinion that the Commission has already exercised its plenary powers to preserve some of the other names, e.g. *Gallinago*, and that it reserves the authority to exercise these powers in additional cases, particularly with respect to *Lorius* and *Cacatua*."

CERTIFICATE

I certify that the votes cast on Voting Paper (62)49 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Direction No. 105.

W. E. CHINA
Acting Secretary
International Commission on
Zoological Nomenclature
London
19 *March* 1963

CRASSISPIRA SWAINSON, 1840 (GASTROPODA, ORDER PROSOBRANCHIATA); PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE *PLEUROTOMA BOTTAE* VALENCIENNES, 1840, AS THE TYPE-SPECIES. Z.N.(S.) 459

By Joshua L. Baily, Jr. (*San Diego, California*)

The genus *Crassispira* was proposed by Swainson (1840, *Treatise Malac.*: 151, 313), without any type designation, for two species, *Pleurotoma bottae* Auct. and *Crassispira fasciata* Swainson, 1840 (*Treatise Malac.* : 313). A type-species must be chosen from these two species.

2. The first subsequent designation of a type-species was made by Herrmannsen in March 1847 (*Indicis Gen. Malacoz. Primordia* **1** : 318) who chose *Pleurotoma bottae* Valenciennes [in Kiener 1839–1840, *Spec. Gén. Icon. Coquilles Vivantes* **5**: 33]. The legality of this designation is open to question, since Swainson did not mention Valenciennes as a potential authority for *Pleurotoma bottae*. If the expression "Auct." is to be construed as including Valenciennes then this type designation is quite regular and legal, and it fixes the meaning of the generic name. But if it should not to be so construed the designation would be invalid.

3. Another type-species designation was made in November 1847 by Gray (*Proc. zool. Soc. Lond.* 1847 (Pt. 15) : 134), who chose the other species, *Crassispira fasciata* Swainson. This designation would become effective if Herrmannsen's designation should be declared void.

4. Grant and Gale in 1921 (*Mem. San Diego Soc. N.H.* **1** : 580) gave a convincing argument in favour of the hypothesis that *Pleurotoma bottae* Valenciennes is included in *Pleurotoma bottae* Auct. Woodring (1928, *Carnegie Inst. Wash.*, Publ. No. 385 : 147) gave an equally plausible argument that *Pleurotoma bottae* Valenciennes is not included in *Pleurotoma bottae* Auct. and that therefore Herrmannsen's designation is illegal. Yet he accepts it because in the present state of practice any other course would be productive of confusion. In this opinion I concur.

5. There is added confusion deriving from the fact that Swainson's species cannot be identified from his illustration. Swainson himself placed it in the Columbellidae, which belongs to the tribe Rachiglossa, but his illustration suggests the Melaniidae in the Taenioglossa. The genus *Pleurotoma* is in the Turridae in the Toxiglossa.

6. If Gray's designation is held to be the correct one to use, then a new name must be found for the group traditionally called *Crassispira* and that name might have to be applied to a different group which is probably well known under some other name.

7. For these reasons I ask the International Commission on Zoological Nomenclature :—

(1) to use its plenary powers to set aside all type-species selections for the genus *Crassispira* Swainson, 1840, made prior to this ruling, and having

done so, to designate *Pleurotoma bottae* Valenciennes in Kiener, 1839–40, as its type-species ;

(2) to place on the Official List of Generic Names in Zoology the generic name *Crassispira* Swainson, 1840 (gender : feminine) type-species, by subsequent designation under the plenary powers in (1) above, *Pleurotoma bottae* Valenciennes in Kiener ;

(3) to place on the Official List of Specific Names in Zoology the specific name *bottae* Valenciennes in Kiener, 1839–40, as published in the binomen *Pleurotoma bottae* (type-species of *Crassispira* Swainson, 1840).

PACHYGNATHUS DUGÈS, 1834 (ARACHNIDA, ACARI); PROPOSED SUPPRESSION UNDER THE PLENARY POWERS IN FAVOUR OF *ALYCUS* KOCH, 1842 Z.N.(S.) 465

By Dr. Elsa Bottazzi (*Istituto di Zoologia, Università di Parma, Italy*)

The object of the present application is to resolve the homonymy between PACHYGNATHIDAE (Arachnida, Acari) and PACHYGNATHINAE (Arachnida, Araneida).

2. The family name PACHYGNATHIDAE Kramer, 1877 (*Arch. Naturgesch.* **43** : 234) is based on the generic name of its type-genus *Pachygnathus* Dugès, 1834 (*Ann. Sci. Nat.*, Paris (2) Zool. **2** : 54) type-species *P. villosus* Dugès, 1834. [*Pachygnathus* was established for a single species given the vernacular name "*Le Pachygnathe velu*" and is therefore virtually monobasic. This type-species was not given a valid name until 1836 when the vernacular name was replaced by the latin name *villosus* in the index to *Isis* (Oken) **20**(7) : 518.]

3. The subfamily name PACHYGNATHINAE, correction of PACHYGNATHEAE Simon, 1894 (*Hist. nat. Araignées* (ed. 2) **1** : 713) is based on its type-genus *Pachygnatha* Sundevall, 1823 (*Spec. Gen. Aran. Suec.* : 16) type-species *Pachygnatha clercki* Sundevall, 1823, by monotypy.

4. The name *Pachygnathus* Dugès, 1834, was only used for eight years when C. L. Koch, 1842 (*Uebers Arachnidensyst.* 3(1) : 38) introduced the name *Alycus* for this taxon presumably because he regarded *Pachygnathus* Dugès, 1834, as a homonym of *Pachygnatha* Sundevall, 1823. Koch's name has been used since 1842 much more than *Pachygnathus* Dugès, although the latter name has been used within recent times. The history of this genus is well set out in Thor & Willmann (1941, *Das Tierreich* **7** : 129).

Two species were originally included in *Alycus*, *A. roseus* Koch, 1842, and *A. devius* Koch, 1842. The type-species was not validly designated until 1937 when Oudemans (*Krit. Hist. Overz. Acarologie* 3(c) 1805–1850, No. 396 : 866) cited *A. roseus* Koch. *Alycus roseus* Koch, 1842, has been shown to be a synonym of *Pachygnathus villosus* Dugès, 1834, so that *Alycus* Koch is a synonym of *Pachygnathus* Dugès.

Unfortunately *Alycus* Koch, 1842, is a homonym of *Alycus* Rafinesque, 1815 (*Analyse* : 110) which had been established apparently as an unnecessary new name for *Lycus* Fabricius, 1787 (*Mantissa Ins.* **1** : 163). Rafinesque's name is not used in Coleoptera, but since *Alycus* Rafinesque has status in nomenclature (Art. 33a (ii)) it must therefore be suppressed to validate *Alycus* Koch.

5. The first family group name based on *Alycus* Koch was ALYCHINI G. Canestrini and F. Fanzago, 1877 (*Atti Ist. Veneto Sci. Lett. Art.* (5) **4**(1) : 168). The first correct spelling for this name ALYCIDAE was by Sig Thor, 1929 (*N. Mag. Naturv.* **67** : 185, 191, t.7) but there are various erroneous spellings which are proposed for the Official Index below.

6. In order to prevent the confusion caused by the homonymy of family-group names based on *Pachygnathus* Dugès, 1834 (Acari) and *Pachygnatha* Sundevall, 1823 (Araneida) and at the same time to validate the current usage of the name *Alycus* Koch, 1842, for *Pachygnathus* Dugès, it is requested that the

International Commission :—

- (1) make use of its plenary powers :
  - (a) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy, the generic name *Pachygnathus* Dugès, 1834 ;
  - (b) to suppress for the purposes of both the Law of Priority and the Law of Homonymy, the generic name *Alycus* Rafinesque, 1815.
- (2) place the following generic names on the Official List of Generic Names in Zoology :
  - (a) *Pachygnatha* Sundevall, 1823, *Spec. Gen. Aran. Suec.* : 16, type-species by monotypy *Pachygnatha clercki* Sundevall, 1823 (gender : feminine) ;
  - (b) *Alycus* Koch, 1842, *Uebers Arachn. Syst.* 3(1) : 38, type-species *Alycus roseus* Koch, 1842 (designated by Oudemans 1937) (gender : masculine).
- (3) place on the Official List of Specific Names in Zoology the following names :
  - (a) *clercki* Sundevall, 1823, as published in the binomen *Pachygnatha clercki* (type-species of *Pachygnatha* Sundevall, 1823) ;
  - (b) *roseus* Koch, 1842, as published in the binomen *Alycus roseus* (type-species of *Alycus* Koch, 1842).
- (4) place on the Official List of Family-Group Names in Zoology the following names :
  - (a) PACHYGNATHINAE (Araneidae), correction of PACHYGNATHEAE Simon, 1894, type-genus *Pachygnatha* Sundevall, 1823 ;
  - (b) ALYCIDAE (Acari), correction by Sig Thor, 1929 of ALYCHINI G. Canestrini and F. Fanzago, 1877, type-genus *Alycus* Koch, 1842.
- (5) place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names :
  - (a) *Pachygnathus* Dugès, 1834, as suppressed under the plenary powers in (1)(a) above ;
  - (b) *Alycus* Rafinesque, 1815, as suppressed under the plenary powers in (1)(b) above.
  - (c) *Alicus* Berlese, 1890, Acari, Myr. Scorp. Padua fasc. 57, no. 10, unnecessary emendation of *Alycus* Koch, 1842.
- (6) place on the Official Index of Rejected and Invalid Family Group Names in Zoology the following names :—
  - (a) PACHYGNATHIDAE Kramer, 1877 (type-genus *Pachygnathus* Dugès, 1834) (based on a generic name suppressed under the plenary powers in (1)(a) above) ;
  - (b) ALYCHINI Canestrini and Fanzago, 1877 (type-genus *Alycus* Koch, 1842) (incorrect original spelling of ALYCIDAE Sig Thor, 1929) ;
  - (c) ALICHIDAE Berlese, 1905 (*Redia* 2 : 14) (type-genus *Alycus* Koch, 1842) (incorrect spelling, based on *Alicus* Berlese, 1890, of ALYCIDAE Canestrini and Fanzago, 1877).
  - (d) PACHYGNATHEAE Sina, 1894, incorrect original spelling for PACHYGNATHINAE (type-genus *Pachygnatha* Sundevall, 1823).

SCIAENA LINNAEUS, 1758 (PISCES) : PROPOSED VARIATION UNDER THE PLENARY POWERS OF THE RULING GIVEN IN OPINION 93 CONCERNING THE TYPE-SPECIES. Z.N.(S.) 850

By E. Trewavas (*British Museum* (*Natural History*), *London*)

1. In Opinion 93 (1926) " by suspension of its Rules ", the International Commission on Zoological Nomenclature placed the genus *Sciaena* on the Official List with type " *umbra* L.=*Cheilodipterus aquila* Lacép. as restr. by Cuvier, 1815 ".*

I hope to show that this has met with no acceptance, since *Sciaena umbra* Linnaeus is neither wholly nor partly equivalent to *Cheilodipterus aquila* Lacépède ; further that no advantage in stability is to be gained by following alternative (i) of Article 70a and declaring these names to be equivalent. I propose that instead the Commission should follow alternative (iii) of Art. 70a to fix the type as *Sciaena umbra* L., as nominally designated by Cuvier in 1814, but as restricted by him in 1817.

2. Opinion 93 on *Sciaena* comprises three parts :

(i) A nomenclatorial decision to designate *Sciaena umbra* L. as the type of *Sciaena*.

(ii) A taxonomic decision equating *S. umbra* L. with *Cheilodipterus aquila* Lacépède.

(iii) An ambiguous qualifying clause, " as restr. by Cuvier 1815 ".* As it reads this means that Lacépède's description was indecisive until Cuvier fixed the name to the species so fully and unmistakably described by himself. But the Commissioners (especially D.S.J.) probably meant that *S. umbra* L. was a complex taxon until Cuvier restricted it to *C. aquila* Lac., and this is in fact the explanation given by Jordan and Evermann (1917 : 13 and 128).

3. *The Mediterranean Sciaenidae* : *taxonomic situation*

Of the five Linnean species of *Sciaena*, the first three are species dubiae and not Sciaenidae as since understood. In 1814 Cuvier restricted the genus to Nos. 4 and 5, the two species which Linnaeus took from Artedi and named *S. umbra* and *S. cirrosa*. The type-species of *Sciaena* must therefore bear one of these names. Three sciaenid species were then known in the Mediterranean and Cuvier believed that the name *umbra* covered two of them and *cirrosa* the third. We shall refer to them by the French names which Cuvier associated with them and by the scientific names adopted for them in Günther's Catalogue.

(i) Le Maigre, *Sciaena aquila* (Lacépède). This is the species which Opinion 93 would make the type of *Sciaena* under the name *S. umbra* L.

(ii) Le Corb (or Corp), *Corvina nigra* (Bloch). This is the true *Sciaena umbra* L. (see para. 6 below).

(iii) L'Ombrine, *Umbrina cirrhosa* (L.). The only one of the three with a cirrus or barbel.

From Cuvier and Valenciennes onwards nearly all authors have agreed in placing these species in three genera, and this emphasizes the necessity of agreeing on the type-species of *Sciaena*.

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*This should be 1814 ; see bibliography.

4. For further discussion it will be convenient to refer to the summary of the history of the nomenclature of each species in the appendix. I have included only names given to the respective Mediterranean species in the full understanding that they were these species ; that is, apart from the interpretation of Linnaeus's names no taxonomic question is involved. The only exception is placed in square brackets, and three pre-1758 references are similarly bracketed.

It will be seen that " le Maigre " was not described or named by Linnaeus (see para. 6 below) and that very few authors have used a Linnaean name for it ; that " le Corb " has been named both *umbra* L. and *nigra* Bl., several authors accepting these as synonyms ; recent authors lean to *umbra* ; that " l'Ombrine " has been named *cirrosa* or *cirrhosa* with great consistency, only Lacépède, followed by Risso (1810), naming it *Perca umbra*, while using *Sciaena umbra* for " le Corb ".

Each time that *Sciaena umbra* has been used for le Maigre the usage has broken down under closer study. Thus Cuvier used it in 1814 and 1829, but not in 1817 or 1830. Bonaparte accepted it in his *Iconografia*, but became confused in 1846. Doderlein used it in his *Prodromo* (1878), but in his final system (1889) transferred it to the synonymy of le Corb.

5. *The Sciaena of Artedi, ed. Linnaeus*, 1738.

The *Sciaena* No. 1, " maxilla . . . inferiore cirrosa ", is stated to be the "*Sciaena et Umbra auctorum*".

The *Sciaena* No. 2, " pinnis ventralibus nigerrimus ", is the species known in Rome as Umbrino.

Careful study of the earlier authors leads me to the conclusion that *Umbra* and probably *Sciaena* were used for l'Ombrine (*Umbrina cirrhosa* of Günther). Salviani's figure of the fish described under the heading " De Umbrina ", " G(reek) σκιονα, L(atin) Vmbra, V(ernac.) Ombrine ", has a short barbel and must, as well as his " Coracinus ", be l'Ombrine. For Rondelet *Coracinus* is le Corb, *Umbra* l'Ombrine, and his *Latus* is almost entirely based on le Maigre, with some confusion with *Lates niloticus*.

Artedi's *Sciaena* No. 1 is therefore entirely l'Ombrine, *Umbrina cirrhosa* of Günther, and his *Sciaena* No. 2 is, by the description, le Corb, *Corvina nigra* of C. & V., while the vernacular name associated with it may apply to this species or to l'Ombrine. [Cf. Rondelet's statement (1554, p. 132) that in Rome and Montpelier they sell " Coracinus pro umbra et umbra pro coracinus "]. Artedi thus ignores le Maigre.

6. *The species of* Sciaena *of Linnaeus* (1758).

Linnaeus listed five species. The first three have too few fin rays to belong to the Sciaenidae as now understood and have been omitted from most subsequent systems as *species dubiae*. The fourth is *Sciaena umbra* and the diagnosis is that of Artedi's *Sciaena* No. 2 (with " nigerrimus " incorrectly transcribed as "integerrimus"), with a bibliographical reference to the same. There is also a reference to the *Sciaena umbra* of Hasselquist's *Iter Palaestinum* ed. Linnaeus (1757). The latter is unmistakably *Umbrina cirrhosa* of Günther.*

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*Walbaum, too, (1792, p. 306 Additamentum) recognised this.

Thus, *Sciaena umbra* Linn. (except the ' synon. Hasselquist ' which is *Umbrina cirrhosa*) is Le Corb, *Corvina nigra* of C. & V. and of Günther, and there is in it no admixture of Le Maigre, " *S. aquila* ". Linnaeus's fifth species, *Sciaena cirrosa*, is the *Umbrina cirrhosa* of Günther, and this has never been in doubt.

7. Four times has a type been designated for the genus *Sciaena* before the publication of Opinion 93 (as explicit a designation as could be expected at that time) :—

(i) Cuvier, 1814, p. 13.

" Je propose aux naturalistes de remettre ensemble ces trois poissons pour en reformer le genre Sciaena tel qu'il avoit été etabli par Artedi, et pour y joindre les premiers *johnius* de *Bloch*, lesquels ne diffèrent evidemment en rien de générique, ni du *maigre* ni du *corp*.

Le *sciaena cirrhosa* offrira seul assez de caractères pour former un sous-genre dans le genre *sciaena*, a cause de ses dents toutes en fin velours comme celles de la perche, et du tubercule charnu . . . " etc.

"Le genre [i.e. *Sciaena*] ainsi établi, je conservirai au *corp*, *corbeau* ou *negre*, le nom de *sciaena nigra* qui lui a été imposé par *Bloch*, et je restreindrai au *maigre*, celui de *sciaena umbra*, qui lui avoit été donné en commun avec le *corp*, par *Linnaeus* ". Thus the only Linnaean *name* retained in *Sciaena* by Cuvier, *umbra*, was wrongly restricted by him to a non-Linnaean species (see para. 5 above).

In Le Règne Animal (1817), however, Cuvier proposed the genus *Umbrina* for *S. cirrosa* L. and distinguished two species of *Sciaena* under the headings :—

" Le Corb ou Corbeau (*Sciaena umbra*, L.) *Sc. nigra* Bl. 297 "

and

" Le Fegaro ou Maigre, Aigle, etc. (*Sciaena aquila* nob.) "

We may therefore say that Cuvier designated *S. umbra* L. as the type-species of *Sciaena* in 1814, but misidentified it, correcting this misidentification in 1817. Whatever Cuvier did in 1829 and 1830 need not affect the validity of this type-designation.

(ii) Gill, 1862, pp. 81–82.

" *Sciaena* (Artedi) " " Type *Sciaena aquila* Cuv.", obviously invalid.

(iii) Bleeker, 1863, p. 66. " Je note ici que, l'espèce typique du genre Sciaena Art. étant l'Umbrina cirrhosa C.V., le nom de Sciaena devra être appliqué aux éspèces dont Cuvier a fait des Umbrina, et ne pourra plus être employé dans le sens de Cuvier. Ni M.-Günther ni M.-Gill, dans leurs travaux sur les Sciénoides, paraissent avoir fait attention a ce que le nom générique d'Artedi est mal employé par les auteurs modernes et M.-Gill cite même le Sciaena aquila Cuv. comme type du genre."

Elsewhere in the same year (1863a, 142–4) Bleeker repeated this designation and proposed a new name *Pseudosciaena*, for *Sciaena* Cuv. nec Linn.*

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*In 1889, Jordan & Eigenmann took *S. aquila* to be the type of *Pseudosciaena*, which they used as a subgenus of *Sciaena*. This type-designation was evidently Bleeker's intention, for, although (1863a, 142) he first used the name to describe a new Chinese species as *Pseudosciaena amblyceps*, he wrote at the end of that description, " Rem. Le nom générique de Sciaena étant donné primitivement à l'espèce decrite depuis sous le nom d'Umbrina cirrhosa, le genre Umbrina Cuv. devra porter le nom de Sciaena, tandis que le genre Sciaena de M.-Cuvier devra prendre un autre nom, qui pourrait être celui de Pseudosciaena. L'espèce actuelle me parait être nouvelle pour la science ".

Thus Bleeker clearly proposed *Pseudosciaena* as a nom. nov. for *Sciaena* Cuv. *nec* Linn. and the type-species of *Pseudosciaena* must be *Sciaena umbra* Cuv. 1814, *nec*. Linn. (=*Cheilodipterus aquila* Lac.).

In his " Genera of Fishes " (1919), however, Jordan cited *Ps. amblyceps* as the type of *Pseudosciaena.*

This designation of *S. cirrosa* as the type-species has been accepted by Fowler since 1918 and by Weber and de Beaufort (1936) in works on Indo-Pacific fishes, and Fowler introduced it into Eastern Atlantic usage in 1936.

(iv) Jordan & Eigenmann (1889) analysed the situation very clearly, but at this time omitted any consideration of Cuvier's work of 1814 and dated his first restriction from Le Règne Animal (1817). They wrote (p. 420) "*Sciaena* was originally (Artedi, 1738 ; Linnaeus, 1758) founded on the typical species of the two modern genera *Umbrina* and *Corvina*. In 1817, *Umbrina* was set off from this group and *Sciaena* was made to apply to the group later called *Corvina*, a third species (*aquila*) being added to *Sciaena*. Later (1829) *Corvina* was separated by Cuvier. This gave *Umbrina*, *Corvina* and *Sciaena*, the latter name then standing for *aquila*. In 1862*, Bleeker", etc. . . . "In our view but one arrangement of these names is allowable. *Umbrina* must stand, *Sciaena* must take the place of *Corvina*, and the third species (*aquila*) must take a new name—*Pseudosciaena* Bleeker". Thus they declared *Sciaena umbra* (=*Corvina umbra* or *C. nigra*) to be the type of *Sciaena* ; they used *Pseudosciaena* as a subgenus of *Sciaena*.

Jordan & Thompson (1911) reiterated this decision. (At this time they recognized *Argyrosomus* as a senior synonym of *Pseudosciaena*.)

8. The decision of Opinion 93 was evidently intended nevertheless by D. S. Jordan to fix the conception *Sciaena* to le Maigre and to justify this by confirming Cuvier's designation of 1814, the suspension of the Rules being necessary for the arbitrary acceptance of Cuvier's decision (implicitly repudiated in 1817) to equate *S. umbra* L. with le Maigre, later recognized to be *Cheilodipterus aquila* Lacépède.

This synonymy, however, has stuck in the throats of almost all subsequent authors†, including Cuvier himself in the first edition of Le Règne Animal (1817) and in the Hist. Nat. Poissons (1830). For, as explained in para. 6 above, *S. umbra* L. is a mixture of le Corb and l'Ombrine but has no taint of le Maigre. The many nineteenth century authors who took le Maigre implicitly as the type of *Sciaena* took it under the name *S. aquila* (Lac.).

9. Any misgivings we may have at upsetting nineteenth century nomenclature of these well-known species are in vain, for *aquila* was not the first specific name for le Maigre nor *Pseudosciaena* its first generic name ; *Corvina* Cuv. was preceded by *Coracinus* Pallas, 1814 (valid since *Coracinus* Gronovius is disallowed), as well as by *Sciaena* itself. Moreover, twentieth century authors have been divided between adherents of Bleeker and of Opinion 93.

The first specific name for le Maigre was *regia*, used by Asso (1801) in the combination *Perca regia*. This was first recognized by Lozano y Rey (1952), who placed it in the genus *Johnius* Bloch (following Fowler, 1936). I agree, however, with Lin (1938, p. 170) in considering le Maigre to differ too much from the type-species of *Johnius* to be included in the same genus, and agree with him and an earlier opinion of Fowler (1918, pp. 62–65) in adopting for it *Argyrosomus* de la Pylaie (1836), a name irregularly but validly proposed in the following words (p. 532) :—

" . . . l'*Argyrosomus procerus*, nouveau genre que j'ai formé avec le

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**errore pro* 1863.

†Steindachner (1870, p. 698) is an exception.

> *Sciaena aquila*, Cuv., et auquel j'associe une nouvelle espèce l'*Arg. sparoides*, de la Baie de Bourg-Neuf."

This report was a summary of a work which he had in hand, but which was never published in full. The " new species " is a *nomen nudum* but the type of *Argyrosomus* is evidently *Sciaena aquila* of Cuv. although he gives it a new specific name at the same time as a new generic one. This was recognized by Jordan and Thompson (1911), although they included both Maigre and Corb in their conception of *Sciaena*.

10. Summary.

The International Commission is asked to fix the type-species of the genus *Sciaena* L., unsatisfactorily fixed by Opinion 93.

The alternatives are :

(i) *Sciaena* L., 1758, type *Sciaena umbra* L., 1758, as designated nominally by Cuvier in 1814 (*Mem. Mus. Paris* **I** : 13), but as identified by Cuvier in 1817 (Règne, Animal II : 298).

(ii) *Sciaena* L., 1758, type *Sciaena cirrosa* L., 1758, as designated by Bleeker in 1863 (*Verh. holland. Maatsch. Wet.*, (2) **18** : 66).

Neither of these alternatives was generally followed in the nineteenth century, but both then and by many twentieth century authors, an untenable practice, originated by Cuvier in 1829 and 1830, was followed, namely the implicit acceptance as type of this Linnean genus of a non-Linnean species, "*Sciaena aquila* (Lacépède)".

Opinion 93 attempted to combine the first part of alternative (i) with this untenable practice by accepting a synonymy based on Cuvier's original misidentification of *S. umbra*. This is one of the modes of use of the plenary powers allowed by Article 70 of the Code, but it has never been accepted for *Sciaena* by any author who has studied the position, either before or after the promulgation of Opinion 93.

Alternative (i) has been explicitly accepted, since the confusion caused by Cuvier, only by Jordan & Eigenmann in their revisionary work of 1889. Writers on the American fauna use *Umbrina* for the congeners of *Sciaena cirrosa* L. ; in so doing they may be implicitly following Jordan & Eigenmann ; at any rate they are rejecting alternative (ii).

Alternative (ii) has been followed since 1918 by writers on the Indo-Pacific fauna.* In 1936 Fowler introduced it into the Eastern Atlantic literature ; following him it has been used in faunal works on the Eastern Atlantic and Mediterranean by several authors from 1949 onwards.

In asking the Commission to accept alternative (i) I am keeping as near as seems feasible to Opinion 93 as it concerns *Sciaena*. I realise that there are also arguments for alternative (ii).

11. Corollary.

The names of the three classical sciaenid species of the Mediterranean and Eastern Atlantic can no longer remain as they were in Cuvier & Valenciennes (1830) or in Günther's " Catalogue " (1860), but must be changed as shown in the following table, according to which alternative of para. 10 may be adopted.

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*Work in progress shows that some, if not all, the Indo-Pacific species involved are in fact not congeneric with *S. cirrosa* L.

Traditional name	Alternative (i) here advocated	Alternative (ii)
Corvina nigra	*Sciaena umbra*	*Coracinus umbra*
*Umbrina cirrhosa**	*Umbrina cirrosa*	*Sciaena cirrosa*
Sciaena aquila	*Argyrosomus regius*	*Argyrosomus regius*

I am aware that the genus *Johnius* Bloch, 1792, has been made by some authors to accommodate one or two of these species, but I do not agree with the taxonomic decision involved.

12. I therefore ask the International Commission to act in accordance with Art. 70a (iii) of the Code and :

(1) to repeal the Ruling given in Opinion 93 in so far as it concerns the generic name *Sciaena* Linnaeus, 1758 ;

(2) to Rule that the type-species of *Sciaena* Linnaeus, 1758, is to be accepted as *Sciaena umbra* Linnaeus, 1758, as designated by Cuvier, 1814 (*Mem. Mus. Paris* **1** : 13), and restricted by him in 1817, despite the fact that Cuvier misidentified that species in 1814 ;

(3) to confirm the addition to the Official List of Generic Names of the generic name *Sciaena* Linnaeus, 1758 (gender : feminine), type-species, by designation by Cuvier, 1814, *Sciaena umbra* Linnaeus, 1758, as restricted by Cuvier, 1817 (Name No. 444) ;

(4) to place the following generic names on the Official List of Generic Names in Zoology :

  (a) *Umbrina* Cuvier, 1817 (gender : feminine), type-species, by monotypy, *Sciaena cirrosa* Linnaeus, 1758 ;

  (b) *Argyrosomus* de la Pylaie, 1835 (gender : masculine), type-species, by original designation, *Argyrosomus procerus* de la Pylaie (nom. nov. for *Cheilodipterus aquila* Lacépède, 1803=*Perca regia* Asso, 1801) ;

(5) to place the following specific names on the Official List of Specific Names in Zoology :

  (a) *umbra* Linnaeus, 1758, as published in the binomen *Sciaena umbra*, as restricted by Cuvier, 1817 (type-species of *Sciaena* Linnaeus, 1758) ;

  (b) *cirrosa* Linnaeus, 1758, as published in the binomen *Sciaena cirrosa* (type-species of *Umbrina* Cuvier, 1817) ;

  (c) *regia* Asso, 1801, as published in the binomen *Perca regia*.

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*Some authors have corrected Linnaeus's orthography ; others have held to it, as I propose.

APPENDIX (i)

LE MAIGRE

1801 *Perca regia* Asso, 42.

[1802 *Labrus hololepidotus* Lacépède, III, 518, pl. 21, specifically or subspecifically distinct from Le Maigre, although some later authors consider them identical.]

1803 *Cheilodipterus aquila* Lacépède, V, 685, pl. 21, fig. 3.

1810 *Perca vanloo* Risso, 298, pl. 9, fig. 30.

1814 *Sciaena umbra* ; Cuvier.

1817 "*Sciaena aquila* Nob.", Cuvier, II, 298.

1826 *Sciaena aquila* ; Risso, 411.

1827 "*Sciaena aquila*, Cuv.", Geoffroy Saint-Hilaire, 314.

1829 "*Sciaena umbra* Nob.", Cuvier, II, 172, under the heading " Les Maigres ou Sciènes propres (*Sciaena* Nob.) ".

1830 "*Sciaena aquila*, Nob., Chéilodiptère aigle, Lac.", Cuvier *in* Cuvier and Valenciennes, V, 28.

1835 *Argyrosomus procerus* de la Pylaie, 532. (Atlantic coast).

1832–41 *Sciaena umbra* L. " pro parte, imo exclusa diagnosi et synon. Hasselq." ; Bonaparte.

1846 *Sciaena umbra* L. et " ? *Sciaena aquila* Cuv. et Val." ; Bonaparte, 55.

1860 *Sciaena aquila* (Lacép.) ; Günther, 291.

1861 " *Sciaena umbra* L." ; Canestrini, 262 (List only ; considered Le Maigre by elimination E.T.).

1862 "*Sciaena aquila* Cuv." ; Gill, 82.

1863a *Pseudosciaena aquila* (Lac.) (by implication) Bleeker, 142.

1878 "*Sciaena umbra* Linn." ; Doderlein, 38.

1870 "*Sciaena umbra* (=*Sc. aquila* Risso, Cuv. Val. etc.) ", Steindachner, 698

1889 *Sciaena aquila* Cuv. ; Doderlein, 100 [Synonymy includes "*Sciaena umbra* Cuv. (nec Lin.) "].

1889 *Sciaena* (*Pseudosciaena*) *aquila* ; Jordan & Eigenmann, 405.

1893 "*Sciaena aquila* Risso (*Sc. umbra* Cuv., Bp., nec L., *Perca Vanloo* Risso, I. N., *Sc. hololepidota* C.V.) " ; Carus 1893, 651.

1893 *Sciaena aquila* (Lac.) ; Smitt, F. A.

1919 "*Sciaena aquila* Risso " ; Metzelaar, 238.

1935 *Sciaena aquila* (Lac.) ; Nobre, 31.

1936 *Johnius hololepidotus* (Lac.) ; Fowler.

1949 *Johnius hololepidotus* (Lac.) ; Tortonese & Trotti, 81.

1952 *Johnius regius* (Asso) ; Lozano y Rey.

1954 *Sciaena aquila* (Lac.) ; Poll, 234.

1954–6 *Johnius regia* (Asso) ; Albuquerque, 702.

[1957 *Sciaena aquila* Lacép. ; Moal (unpubl. CCTA/CSA)].

1959 *Pseudosciaena hololepidota* ; Collignon, 6.

1962 *Argyrosomus regium** ; Trewavas, 174.

APPENDIX (ii)

LE CORB

[1738 *Sciaena* No. 2, Artedi ed. Linnaeus.]

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*According to Art 30a (i) 3 this should be *regius*.

1758 *Sciaena umbra* (Excl. ref. to Hasselquist), Linnaeus, 289.
1788 *Sciaena umbra* (Excl. ref. to Hasselq.), Linn. ed. Gmelin.
1788 *Sciaena umbra* L.; Bonnaterre, 119.
1792 *Sciaena nigra* Bloch, pl. 297, vol. 6, (nec. *S. nigra* Forskål, 1775, 47).
1801 *Johnius niger* (Bloch); Schneider, 76.
1802 *Sciaena umbra*; Lacépède, IV, 314.
1806 *Sciena umbra* L. (sic); Viviani.
1810 *Sciaena umbra* Lin.; Risso, 295.
1814 *Sciaena nigra* Bloch; Cuvier, 14.
1814 *Coracinus chalcis* Pallas, 256.
1817 " Le Corb ou Corbeau (*Sciaena umbra* L.) *Sc. nigra* Bl. 297 "; Cuvier, 298.
1826 "*S(ciaena) umbra*"; Risso, 410.
1827 "*Sciaena umbra*, Lin., *Sciaena nigra*, Bl."; I. Geoffroy Saint-Hilaire.
1829 " Le corb noir (*Sciaena nigra* Gm.*) Bl. 297 "; Cuvier, 173.
1830 " *Corvina nigra*, Nob; *Sciaena nigra*, Linn. Gm.* "; Cuvier *in* Cuvier & Valenciennes, 86.
1832–41 " *Corvina nigra*, Bloch nec Gmel."; Bonaparte (first in the synonymy comes: " *Sciaena umbra*, Linn. Syst. Nat. 1, p. 480, sp. 4, pro p. et excl. synon. Hasselq.")
[? 1847] *Melantha nigra*; Gistel, 109.
1848 *Excursor nigra*; Gistel, xiii.
1860 *Corvina nigra* Bl.; Günther, 296.
1862 " *Corvina nigra* Cuv."; Gill, 85.
1878 " *Corvina nigra* Cuv."; Doderlein, 38.
1881 " *Corvina nigra* Cuv."; Moreau, 402.
1889 "*Sciaena* (*Sciaena*) *umbra* Linnaeus "; Jordan & Eigenmann, 397 and 406.
1889 " *Corvina nigra* Cuv. Val."; Doderlein, 105 [Synonymy includes " *Sciaena umbra* Linn.".]
1893 " *Corvina* Cuv. 1. *C. nigra* (*Sciaena Umbra* L. nec Cuv. *Sc. nigra* Bl., *Sc. cappa* Raf.) "; Carus, 652.
1919 "*Sciaena* (*Corvina*) *nigra* Bl. Schn."; Metzelaar, 238.
1935 *Corvina umbra* (L.); Nobre, 32.
1936 *Johnius umbra* (L.); Fowler, 883.
1948 " *Corvina nigra* C.V."; Soljan, 203.
1949 *Johnius umbra* L.; Tortonese & Trotti, 81.
1952 *Johnius umbra* L.; Lozano y Rey.
1954–6 *Johnius umbra* (L.); Albuquerque, 703.
1959 *Johnius umbra*; Collignon, 7.
1963 *Sciaena umbra*; Trewavas, 174.

Appendix (iii)

L'Ombrine
[1738 *Sciaena* No. 1. Artedi ed. Linnaeus.]
[1757 *Sciaena umbra* Hasselquist ed. Linnaeus, 352.]

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*Error; *S. nigra* Gmelin=*S. nigra* Forskål, 1775, a Red Sea Lutjanid of genus *Macolor*. For this information I thank Mr. N. B. Marshall.

1758	*Sciaena cirrosa* Linn., 289.
	Sciaena umbra (part.) Linn., 289 (ref. to Hasselquist only).
1788	*Sciaena cirrosa*, Linn. ed. Gmelin, 1300.
1788	*Sciaena cirrosa* Linn. ; Bonnaterre, 121 (" Le Corp " ; the figure, pl. 53, fig. 203, is bad and shows no barbel, but the text describes l'ombrine).
1792	*Sciaena cirrosa* ; Bloch, pl. 300.
1801	*Johnius cirrhosus* ; Bl. Schn., 76.
1801	*Sparus coracinus* ; Asso, 36.
1802	*Perca umbra* ; Lacépède, IV, 414.
1806	*Sciaena cirrhosa* L. ; Viviani *in* Faujas-Saint-Fond, 370.
1810	" *Perca umbra* Lac." ; Risso, 297.
1810	" *Perca umbra* Lac. (*Sciaena cirrosa* Linn.) " ; Rafinesque, 16.
1814	*Sciaena cirrhosa* ; Cuvier, 11, 13 & 14.
1814	*Coracinus boops* ; Pallas, 259.
1817	" *Umbrina Cuv.*", " L'Ombrine barbue de la Mediterranée (*Sciaena cirrhosa*, L.)" ; Cuvier, 297.
1826	*Umbrina cirrhosa* ; Risso.
1827	*Umbrina cirrhata* (sic) ; I. Geoffroy Saint-Hilaire.
1829	" *Umbrina* N.", " (*Sciaena cirrhosa*, L.) " ; Cuvier.
1830	" L'Ombrine commune. (*Umbrina vulgaris*, Nob., *Sciaena cirrhosa*, L.) "; Cuvier *in* Cuvier & Valenciennes, 171.
1832–41	*Umbrina cirrosa*, (L.) ; Bonaparte.
1848	*Attilus cirrhosa* (L.) ; Gistel, 109.
1860	*Umbrina cirrhosa*, (L.) ; Günther, 274.
1862	" *Umbrina cirrhosa* Cuv." ; Gill, 86.
1863	*Sciaena cirrhosa*, L. ; Bleeker, 66.
1878	" *Umbrina cirrhosa* Cuv." ; Doderlein, 38.
1881	*Umbrina cirrosa* ; Moreau, II, 391.
1889	" *Umbrina cirrhosa* (ex Lin.) " ; Doderlein, 94.
1889	*Umbrina cirrosa* (L.) ; Jordan & Eigenmann, 419 and 422.
1893	" *Umbrina cirrosa* Cuv. (*Sciaena cirrosa* L., *Perca umbra* Lac. Risso, I. N. nec L., *U. vulgaris* C.V., *U. canariensis* Val., var. Stdchnr.)"; Carus, 65.
1919	*Umbrina cirrhosa* L. ; Metzelaar, 237.
1935	*Umbrina cirrosa* (L.) ; Nobre, 29.
1936	*Sciaena cirrosa* L. ; Fowler, 889.
1948	" *Umbrina cirrosa* Cuv." ; Soljan, 175.
1949	*Sciaena cirrosa* L. ; Tortonese & Trotti, 81.
1949	*Sciaena cirrosa* L. ; J. L. B. Smith, 227.
1952	*Sciaena cirrosa* L. ; Lozano y Rey, 239.
1954–6	*Sciaena cirrosa* L. ; Albuquerque, 700.
1959	*Sciaena cirrosa* L. ; Collignon, 8.
1961	*Umbrina cirrhosa* ; Dardignac, 263.
1962	*Umbrina cirrosa* ; Trewavas, 174.

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*Opinion 212 of the International Commission on Zoological Nomenclature dates vol. III "[1814]" and rules that names there proposed are to date from that year. Most of the plates prepared for this work were never published, but the drawings are still in Leningrad, and photographs of those of *Coracinus chalcis* and *C. boops* kindly supplied by Dr. L. Svetovidov, confirm their identity respectively with *Sciaena umbra* and *S. cirrosa* Linn. 1758.

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LEPTOPHIS VERTEBRALIS DUMÉRIL, BIBRON AND DUMÉRIL, 1854 (REPTILIA, SERPENTES) ; REQUEST FOR SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1559

By Hobart M. Smith, (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

In 1854, in volume 7 of their great classic *Erpétologie Générale*, Duméril, Bibron and Duméril described (pp. 543–4) a new species of snake, *Leptophis vertebralis*, from Manila, which for some inexplicable reason was not allocated by Boulenger in his supposedly full synoptic *Catalogue of Snakes in the British Museum*. Taylor did not overlook the name in his " Snakes of the Philippine Islands " (1922), but he begged the question of its identity (p.23) with the comment that it, " if from the Philippines, is probably a species of *Natrix* ". The name was noted in Oliver's monograph of *Leptophis* (1948, *Bull. Amer. Mus. nat. Hist.* **92** : 234), with the observation that it does not belong to the strictly American genus *Leptophis* as now understood. He did however note (*loc. cit.*) that it preoccupies the exact junior homonym *Leptophis vertebralis* Werner (1909, *Mitt. nat. Hist. Mus. Hamburg* **26** : 221), which was in any event based upon a specimen of a form known by the senior synonym *Leptophis ahaetulla liocercus* Wied, 1824. Werner himself, in his synopsis of colubrid snakes (1929, *Zool. Jahrb.* **57** : 103), synonymized his *vertebralis* with *Leptophis flagellum* Andersson, 1901, which Oliver also synonymized (*loc. cit.*) with *liocercus* ; even then, in 1929, Werner seemingly was not aware of the earlier usage of *Leptophis vertebralis* by Duméril, Bibron and Duméril in 1854.

Dr. Jean Guibé kindly exhumed the holotype of Duméril, Bibron and Duméril's *vertebralis* for my inspection. It is now No. 3462 in the Museum National d'Histoire Naturelle in Paris, and bears the same essential data recorded by the original authors, " Manille ", " Liautaud " collector. The original description explains that the collector was a surgeon-general on the frigate Danaïde. Comparisons with Taylor's descriptions of Philippine snakes, and with Malnate's generic revision (1960, *Proc. Acad. nat. Sci. Philadelphia* **112** : 41–71), make it evident that the type belongs to the species Taylor named in 1922 *Natrix barbouri* (1922, *Philippine Journ. Sci.* **21** : 291–293). This species was referred by Malnate (*op. cit.*: 48) to *Macropophis*, and the characters of the type of *vertebralis* well fit the generic diagnosis since the maxillary teeth number 41–42 on the two sides, with the series continuous but the rear three teeth abruptly enlarged. This is the only species of the genus *Macropophis* known from Luzón, and accordingly the identification of *vertebralis* with *barbouri* is not open to doubt especially since the type of *vertebralis* agrees well with the original description of *barbouri*. The *vertebralis* type, a female, has 163 ventrals and 103 caudals (the two original types of *barbouri*, 163–169 ventrals, caudals about 100 to 107) ; total length 816 mm., tail 263 mm., scalerows 19 (17 a short distance posterior to midbody).

One other specimen of *vertebralis*, apparently not used in the original description of *vertebralis*, is in the Paris Museum, No. 5868, from Luzón, collected by Montano and Rey. It agrees well with the type, having essentially the same pattern, 155 ventrals, and 103 caudals.

The name *Leptophis vertebralis* Duméril, Bibron and Duméril has never, so far as I am aware, been accepted as a valid name for a known species since it was proposed. Nevertheless, although allocation of the name was uncertain in Oliver's usage in 1948, and in Taylor's in 1922, the name *was* applied there to whatever species the type *does* represent, and thus perhaps the name is thereby exempt from elimination by way of the rule on *nomina oblita* in the 1961 Code (Art. 23c).

Although the name *barbouri* Taylor, 1922, has probably not been used more than at most a dozen times since it was proposed, there is certainly no advantage in changing the name of its species. On the contrary a change would certainly not be in the interest of stability of nomenclature.

Accordingly the International Commission on Zoological Nomenclature is requested :

(a) to use its plenary powers to suppress the specific name *vertebralis*, as published in the combination *Leptophis vertebralis* Duméril, Bibron and Duméril, 1854, for purposes of the Law of Priority but not for the Law of Homonymy ;

(b) to place the specific name *barbouri*, as published in the combination *Natrix barbouri* Taylor, 1922 (holotype California Academy of Sciences No. 61552), on the Official List of Specific Names in Zoology ;

(c) to place the specific name suppressed in (a) above on the Official Index of Rejected and Invalid Specific Names in Zoology.

REQUEST FOR *ACARUS TELARIUS* LINNÉ, 1758, *TROMBIDIUM TILIARIUM* JOH. HERMANN, 1804, *TETRANYCHUS URTICAE* KOCH, 1836, TO BE PLACED ON THE OFFICIAL LIST (ARACHNIDA, ACARINA). Z.N.(S.) 1564

By H. Bruce Boudreaux (*Department of Zoology, Louisiana State University, Baton Rouge, Louisiana, U.S.A.*) and Gudo Dosse (*Institut fur Pflanzenschutz, Stuttgart Hohenheim, Germany*)

1. In his tenth edition of *Systema Naturae* (**1** : 616), Linné included only one name identified with the mite family Tetranychidae : *Acarus telarius*. Since then numerous species have been described in this family, some of which may have been among those confused by Linné, but relatively few species have been described with the obvious intent of revising *Acarus telarius* in terms of which objective species should bear the name of Linné.

2. The evidence indicates the certain inclusion of three objective species in the original combination *Acarus telarius* Linné, 1758. Reference is made to *Fauna Suecica* (Stockholm, 1746) in which Linné had described two species, which he included in *A. telarius* by referring to numbers 1196 and 1212 of *Fauna Suecica*. Species " 1196 " was called *Acarus alceae*, and all acarologists are agreed that this is the common green Two-Spotted Spider Mite or Common Spinning Mite which was defined taxonomically by Boudreaux, 1956, *Ann. Entomol. Soc. America* **49** : 44, using the name *Tetranychus telarius* (L., 1758). The other species, " 1212 ", was called *Acarus viridi-albicans foliorum tiliae*, and all acarologists agree that this is the common Linden Mite, or Lime-tree Spider Mite, which was defined taxonomically by Hirst, 1920, *Proc. zool. Soc. London*, **1920** : 57, and by Pritchard and Baker, 1955, *A Revision of the Spider Mite Family Tetranychidae*, *Pacific Coast Entomol. Soc. Man. Ser.* **2** : 178, under the name of *Tetranychus tiliarium* (Hermann, 1804, *Mémoire Aptérologique* : 42). However, both of these species are greenish mites which are never reddish except when females are in diapause during the fall, winter and early spring. Yet Linné described *A. telarius* as *reddish*, reproducing on greenhouse plants, as well as being found on Linden *in the fall*. It has been assumed that the " reddish " colour (hyalinofulvus, in ed. 10, later changed to rubicundohyalinus) mentioned by Linné described mites in diapause, but certainty on this score is possible only for the Linden mite, since a very common greenhouse pest in Europe is a red species which was defined taxonomically by Boudreaux, 1956, *Ann. Entomol. Soc. America* **49** : 45, using the name *Tetranychus cinnabarinus* (Boisduval, 1867, *Essai sur l'entomologie horticole* : 88). This is a species which prior to 1956 was considered to be a nutritionally or seasonally induced variant of the green form of the so-called Common Spinning Mite.

3. A Linnean dissertation (E. O. Rydbeck, 1758, *Pandora Insectorum*, Uppsala) was cited as evidence by Oudemans, 1937, *Critical Historical Survey of Acarology*, Leyden **3C** : 1045, and by van Eyndhoven, 1962, *Entomologische Berichten* **22** : 179–183, for restricting the name *Acarus telarius* Linné to the

Linden Mite. The dissertation is a discourse on the various attributes of insects, and at the end lists plants which harbour various species. Among the guests of Linden is listed "*Acarus telarius* 14" (p. 16). It is plain from the text that the number 14 is reference to *A. telarius* as described in *Systema Naturae*. Therefore the Rydbeck paper is employing the name *sensu* Linné in *Systema Naturae*. Our interpretation of this paper is that Rydbeck was merely saying in effect, using modern language : "Among the insects found on *Tilia* is *Acarus telarius* Linné, 1758". In our opinion, the name as used by Linné in 1758 in *Systema Naturae* involves more than one species, and we cannot agree that Rydbeck was restricting the name to the Linden Mite. It is well known that the Linnean dissertations are the work of Linné himself (Stearn, 1957, facsimile of *Species Plantarum*, London) and if the intent had been to restrict the name *A. telarius* to the Linden Mite, it would have been applied as such in subsequent Linnean works. But all subsequent revisions of *Systema Naturae* (Ed. 11, 12, 13) and the revised *Fauna Suecica*, 1761, describe *Acarus telarius* in the same sense as in Edition 10 of *Systema Naturae*, in all cases referring to both "1196" and "1212" of *Fauna Suecica* of 1746. In the same paper, for *Malva* (Hollyhock) is listed "Acarus, Fn. 1196" (p. 17). This is a reference to *Acarus alceae* Linné, 1746, (*Fauna Suecica*) an unavailable name, because the name was not validated by republication.

4. The name *Trombidium tiliarium* was made available by Johann Hermann, 1804, in J. F. Hermann, 1804, *Mémoire Aptérologique*, p. 42. The specific name *tiliarium* was until the present credited to J. F. Hermann, who formally described *Trombidium tiliarium*, but confused the Linden Mite with a green mite from hollyhock, an unknown host for the Linden Mite. The name must be credited to his father, Johann Hermann, who used the name for the Linden Mite only, demonstrating how it differed from *Acarus telarius* Linné, in an inserted note added between J. F. Hermann's discussions of *Trombidium telarium* Linné and *Trombidium tiliarium*. The work of Joh. Hermann is the first to remove a species from the Linnean *telarius* complex. In the same inserted note, Joh. Hermann (Père) established the name for the carmine mite by saying : "Je vis d'abord, en les examinant à la loupe, qu'ils n'étaient pas l'*Acarus telarius* de Linné, n'étant pas rougeâtres, et n'ayant pas de tache brune de chaque côte du ventre".

5. The first available name for the Two-Spotted Spider Mite as defined taxonomically by Boudreaux (op. cit.) is *Tetranychus urticae* Koch, 1836, *Deutsche Crustacea, Myriapoda, Arachnida*, Fasc. **1** : 10. This is the species which Boudreaux (op. cit.) called *Tetranychus telarius* (Linné, 1758).

6. With the removal of the Linden Mite from the *telarius* complex as *Trombidium tiliarium* Joh. Hermann, 1804, and of the Two-Spotted Mite from the same complex as *Tetranychus urticae* Koch, 1836, there remained a species which must now bear the name *telarius*. Koch, 1838, *Deutsche Crust., Myr., Arach.*, Fasc. **17** : 13, adopted the name *Tetranychus tiliarium* for the Linden Mite but credited it to J. F. Hermann, the son, rather than to the rightful author, Joh. Hermann, the father. In the same book (Fasc. **17** : 12) Koch restricted the name *Tetranychus telarius* (L., 1758) to a reddish species living on many plants, in greenhouses and on potted plants, and this species

is the one defined taxonomically by Boudreaux (op. cit.) as *Tetranychus cinnabarinus* (Boisduval, 1867). We submit that this species is the basis for the reddish colour mentioned by Linné to apply to mites on greenhouse plants.

7. Since it is common practice to name the Linden Mite *Eotetranychus telarius* (L.) in Europe, and to name it *E. tiliarium* (Hermann) elsewhere, and also it is common practice to name the Two-Spotted Mite *Tetranychus urticae* Koch in Europe, and to name it *T. telarius* (L.) elsewhere, the time has arrived for acarologists to stabilize names.

8. There are no known Linnean type-specimens of these mites in existence. Hirst (1920, op. cit.) first figured the most reliable structure for recognition of the Linden Mite, in his illustrations of the aedeagus (p. 51, Fig. 1*e* and *j*). This structure is characteristic and unmistakable in the Linden Mite. The aedeagi of the Two-Spotted Mite and of the Carmine Mite are so similar that it is impossible to use aedeagal characters to separate these two species. The shape of the dorsal integumental lobes of the females is reliable as a character to separate them (Boudreaux, 1956, *Ann. Entomol. Soc. America* **49** : 44–45).

9. A detailed discussion of the confusions about the above names is in press as part of a symposium volume of proceedings of an Acarological Symposium (Recent Advances in Acarology) held at Ithaca, New York, in March, 1962.

10. The writers of this petition want to point out that the procedure outlined is not only in the interest of a stable and universal nomenclature, but it is a petition which does not require any violation of the current Code of Zoological Nomenclature, and it does not revive old prior forgotten names. All the names petitioned for have been used very extensively, but have been shifted back and forth. Now that the species in question cannot be confused with each other. it should not be a continued practice to confuse their names.

11. We ask therefore that the following names be placed on the Official List of Specific Names in Zoology by the Commission :

(a) *telarius* Linné, 1758, as published in the combination *Acarus telarius*. We designate as neotype a female on deposit in the British Museum (Natural History), mounted with Heinze PVA medium on a glass microscope slide bearing data as follows : " From *Phaseolus vulgaris* in Greenhouse, Rotterdam, Holland. June 1, 1962. Live color, Red. Collected by G. Dosse. *Acarus telarius* Linné, 1758. Neotype female." (B.M.(N.H.) 1963.1.9.1). The type-host and locality are given by Linné as " European plants ".

(b) *tiliarium* Joh. Hermann, 1804, as published in the combination *trombidium* [sic] *tiliarium* in a note added to the book of his son, J. F. Hermann. We designate as neotype a male on deposit in the British Museum (Natural History), mounted with Heinze PVA medium on a glass microscope slide bearing data as follows: "From *Tilia cordata*, Strassburg, France. November 14, 1962. Collected by G. Dosse. *Trombidium tiliarium* Joh. Hermann, 1804. Neotype male." (B.M. (N.H.) 1963.1.9.2). These are the type-host and type-locality of the species.

(c) *urticae* Koch, 1836, as published in the combination *Tetranychus urticae*. We designate as neotype a female on deposit in the British Museum

(Natural History), mounted with Heinze PVA medium on a glass microscope slide bearing data as follows: "From *Urtica dioica*, Regensburg, Germany. October 27, 1962. G. Dosse, collector. Live colour, green. *Tetranychus urticae* Koch, 1836. Neotype female." (B.M.(N.H.) 1963.1.9.3). These are the type-host and type-locality of the species.

SPHAERODACTYLUS ARGUS CONTINENTALIS WERNER, 1896 (REPTILIA : LACERTILIA) : REQUEST FOR A RULING ON INTERPRETATION Z.N.(S.) 1566

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*) and Paul V. Terentjev (*Department of Vertebrate Zoology, Leningrad University, Leningrad, U.S.S.R.*)

Taylor (1956, *Univ. Kansas Sci. Bull.* **38** : 32–54) reviewed the geckos of the genus *Sphaerodactylus* known from Costa Rica, recognizing five species, four of them continental. These four Dunn (1940, *Herpetologica* **1** : 189–190) had lumped under the earliest name, *Sphaerodactylus lineolatus* Lichtenstein and von Martens (1856, *Nomenclator Reptilium et Amphibiorum Musei Zoologici Berolinensis*, Berlin : 6). No other species of the genus has been reported from Central America, except for *S. glaucus* Cope of Guatemala and British Honduras ; this species differs markedly from the others by having smooth dorsal scales whereas the others have keeled dorsals. Taylor (loc. *cit.*) is the first author in this century recognizing all five Costa Rican species. One species, as Taylor interpreted them, is limited to Cocos Island (*pacificus*), one to Costa Rica (*imbricatus*), two to Costa Rica and Nicaragua (*homolepis, millepunctatus*), and only one is relatively widely distributed (*lineolatus*), recorded from Panamá, Costa Rica, Nicaragua, Guatemala and México).

Subsequently Grant (1959, *Herpetologica* **15** : 199–202, figs. 1–2) demonstrated conclusively on the basis of a fine series of nearly topotypic specimens that *lineolatus*, based on type material from Panamá, does not apply to the widespread species to which Taylor allocated the name (although *imbricatus* may be conspecific or synonymic). The conclusive evidence was provided by the " escutcheon ", a character visible only on live or well-preserved, mature males.

In removing the name *lineolatus* from application to Taylor's species, Grant did not suggest an alternative. Smith and Álvarez del Toro, however (1961, *Herpetologica* **18** : in press), tentatively revived the name *Sphaerodactylus argus continentalis* Werner, 1896 (*Verh.-zool. bot. Ges. Wien* **46** : 345), from " Honduras ", for the species, as that is the only name which could possibly apply to it, except for *Sphaerodactylus argus* Meerworth, 1900 (*Mitt. Nat. Mus. Hamburg* **18** : 19), from Costa Rica, which is eliminated from consideration because of junior homonymy with *Sphaerodactylus argus* Gosse, 1850 (*Ann. Mag. nat. Hist.* (2) **6** : 347), from Jamaica.

Werner's *continentalis* was so briefly described that the name could readily be applied to any of the Central American species with weakly keeled dorsals ; it is, therefore, a *nomen dubium*. The 1961 Code did not, unfortunately, prescribe rules for handling such names. Although Opinion 126 of the International Commission ruled that *nomina dubia* become nomenclaturally available as of the date of fixation (clarification), and of joint authorship by the original author and the revisor, such a procedure could lead to much confusion. We here hold that *nomina dubia* retain authorship and availability as of the original description, and are to be regarded as restricted in application by choice of the first reviser, which choice has priority over any subsequent choice.

No author has reported further information on the type of *continentalis*, and although the name has been cited in synonymies (as of *glaucus* and *lineolatus*) it has never, to our knowledge, been accepted since 1896 as a valid name for any species, except by Smith and Álvarez del Toro (*loc. cit.*).

The holotype, as indicated by Werner (*loc. cit.*), is in the Zoological Institute of the Academy of Science of the U.S.S.R. in Leningrad, under the catalog number 8880. It is identified on the jar as "*Sphaerodactylus longirostris* Blgr.", but this is a *nomen nudum*. The tag also gives the data "Honduras, 1896. Schlüter coll.". Although the total length (62 mm.) and tail length (32 mm.) differ slightly from present measurements, shrinkage could well account for the discrepancy. Even though the specimen is not actually labelled the type of *continentalis*, there is no reasonable doubt that it is that type. It now measures 30.2 mm. snout-vent, 30.2 mm. tail, 8.5 mm. head length, 4.6 mm. head width, 11.2 mm. snout-arm, 13.4 mm. axilla-groin, 8.0 mm. foreleg, 9.4 mm. hind leg, 3.3. mm. snout-orbit.

When fresh, Werner (*loc. cit.*) described the specimens as "above reddish-gray, glistening like graphite, with a black longitudinal streak behind the eye and numerous black dots arranged in longitudinal rows. Underside whitish, stippled with gray". He also commented that it was "in every respect like the type from Jamaica (Boulenger, Cat. Liz., vol. 1, p. 223, pl. 18, fig. 5), differing only in color.".

The equation of *continentalis* with *argus* must be taken with a grain of salt, of course, since the Jamaican species does differ in structure as well as color from all Central American species, but it may safely be assumed that the dorsals are keeled and the midsubcaudals enlarged in both, since these are objective features and Boulenger stressed the first and clearly stated the latter; in fact Boulenger's key differentiates the forms on a subjective basis (size of dorsals) which, although perfectly valid, is not here given objective expression and would be impossible to evaluate without comparative material.

Re-examination of the holotype of *continentalis* by the junior author reveals that the deductions by Smith and Alvarez del Torro are correct, at least so far as can now be determined. The holotype unfortunately lacks an escutcheon, apparently being a female, and therefore a definitive determination is, even with holotype in hand, impossible. The name remains in effect a *nomen dubium*.

For various reasons, largely ethical but partly in the interest of nomenclatural stability, we would prefer to retain and to fix *continentalis* with the species Taylor (*loc. cit.*) referred to *lineolatus*, rather than to propose a new name for it.

Accordingly we now request the Commission:

(1) to place the name *continentalis*, as first proposed in the combination *Sphaerodactylus argus continentalis* Werner, 1896, holotype Leningrad

Zoological Museum No. 8880, type-locality " Honduras ", on the Official List of Specific Names in Zoology ; and

(2) to limit the application of that name to the species represented by *Sphaerodactylus lineolatus* Taylor (*nec* Lichtenstein and von Martens), 1956 (*Univ. Kansas Sci. Bull.* **38** : 40–45, figs. 8–9).

CONUS CANDIDUS BORN, 1778 (MOLLUSCA, GASTROPODA); PROPOSED SUPPRESSION UNDER THE PLENARY POWERS

Z.N.(S.) 1567

By Alan J. Kohn (*Department of Zoology, University of Washington, Seattle, Washington, U.S.A.*)

This communication requests the International Commission on Zoological Nomenclature to make use of its plenary powers to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, a specific name in the genus *Conus* as published by Ignatius von Born in the *Index Rerum Naturalium Musei Caesarei Vindobonensis, Pars Prima, Testacea*, 1778.

Conus candidus Born, 1778, *Index :* 130. The diagnosis is " Testa conica glabra alba, spirae anfractibus coronatis ". A subdescription adds " Testa conica solida nivea, venter convexiusculus ; apex centralis prominulus, decorticatis, amethystinus ". In the *Testacea Musei Caesarei Vindobonensis* (1780, p. 150), Born added the phrase " apice centrali amethystino " to the otherwise identical diagnosis. A specimen is figured on Plate 7, Fig 9, of the *Testacea.* The dimensions given by Born are 1 pollex, 9 lines × 10 lines or *ca.* 49 × 23 mm.

The diagnosis suggests a worn or polished shell, a view which is supported by additional comments made by Born in the Testacea (p. 150). Here polishing, artificial colouring, and other adulterations of shells are decried, and *C. candidus* is compared with the specimen figured by Seba (1758, *Locupletissimi Rerum Naturalium Thesauri Accurata Descriptio* **3,** Pl. 47, Fig. 8), which Born considered to be a specimen of *C. marmoreus* Linnaeus which had been turned and polished on a lathe. While this is possible, the specimen figured by Seba is perhaps more likely to be a polished *C. virgo* Linnaeus. It is just possible that Born's *C. candidus* was an albino-shelled form of *C. marmoreus*, which is known to occur in New Caledonia (R. T. Abbott, personal communication). However, it is my opinion that the diagnosis, subdescription and figure of *C. candidus* cannot be unequivocally assigned to any particular species.

Although type specimens of seven of the ten species of *Conus* described by Born in the *Index* are now in the collection of the Naturhistorisches Museum, Vienna, no specimen of *C. candidus* is present. Moreover, Brauer (1878, *Sitzungs. Akad. Wiss.* **77 :** 117–192) stated that no specimen of *C. candidus* was present when he studied Born's material.

Brauer (*op. cit.*) referred *C. candidus* to *C. asper* Lamarck (1810, *Ann. Mus. Hist. nat. Paris* **15 :** 39). However, *C. asper* is a junior synonym of *C. sulcatus* Hwass *in* Bruguière (1792, *Encyclopedie Méthodique. Histoire Naturelle des vers* **1 :** 618). Neither the original description nor Born's figure of *C. candidus* give any indication of the many strong transverse grooves and ridges on the body whorl of the shell of the *C. sulcatus.*

It is concluded that the specimen which served as the basis for the description of *C. candidus* was a badly worn or polished shell, which cannot be assigned to any known species and should be suppressed as a *nomen dubium.*

The concrete proposals that I now submit to the International Commission are that it should:

(1) make use of its plenary powers to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy the specific name *candidus* Born, 1778, as published in the combination *Conus candidus* which is a nomen dubium;

(2) place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *candidus* Born (1778, *Index Rerum Naturalium Musei Caesarei Vindobonensis, Pars Prima, Testacea:* 130) as published in the combination *Conus candidus* (a name suppressed under the plenary powers in (1) above).

PLEURONECTES GROHMANNI BONAPARTE, 1837 (PISCES): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS AS A *NOMEN DUBIUM*. Z.N.(S.) 1579

By Menico Torchio (*Museo Civico di Storia Naturale, Milan, Italy*)

Bonaparte described and figured under the name *Pleuronectes grohmanni* (*Icon. Fauna Ital.* (19)) one specimen from the Mediterranean with 80 dorsal rays and 52 anal rays and with the second dorsal ray thickened, about twice as long as those following. Bonaparte's type-material cannot be traced.

2. The original description of *P. grohmanni* is not excessively brief, but certainly, and grossly, mistaken. There are, indeed, present in the Mediterranean : (A) one species with <80 dorsal rays and with <60 anal rays, and with the second dorsal ray not hypertrophic and not thickened ; (B) one species with >80 dorsal rays and >60 anal rays and with the second dorsal ray hypertrophic and thickened, about twice as long as those which follow.

3. The species described under B above was named *Arnoglossus thori* by Kyle in 1913 (*Rep. Danish Ocean. Exped.* 1908–1910, 2(A.1) : 55, text-fig. 8). Kyle proposed his new name as a replacement for *Pleuronectes grohmanni* auctt. non Bonaparte. Both Kyle (1913, op. cit.) and Norman (1934, *Sys. Mon. Flat-Fishes*, Brit. Mus. (Nat. Hist.)) described *Pleuronectes grohmanni*, but because no adult specimen of species A has been recognized since the time of Bonaparte, their descriptions were based on Bonaparte's mistaken diagnosis and on larval and post-larval specimens.

4. I have observed (1961), studying abundant material from the Mediterranean Sea and from the Black Sea, that the species A is the same as that described from the Black Sea by Schmidt (1915, *Ann. Mag. nat. Hist.* (8) **16** : 108–109) under the name *Arnoglossus kessleri*. I have therefore used the name *kessleri* for the species A and the name *thori* for species B. The identification of *Pleuronectes grohmanni* is, in my opinion, impossible. Nor is it possible to designate a neotype, since no specimen of the genus *Arnoglossus* Bleeker is in conformity with the original description of *P. grohmanni*. Since, however, *P. grohmanni* Bonaparte constitutes a threat to both the specific names *A. kessleri* Schmidt and *A. thori* Kyle, the International Commission is asked to take the following action :

(1) to use its plenary powers to suppress the specific name *grohmanni* Bonaparte, 1837, as published in the binomen *Pleuronectes grohmanni*, for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) to place the following specific names on the Official List of Specific Names in Zoology :
  (a) *kessleri* Schmidt, 1915, as published in the binomen *Arnoglossus kessleri* ;
  (b) *thori* Kyle, 1913, as published in the binomen *Arnoglossus thori* ;

(3) to place the specific name suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology.

DIPLECTRONA WESTWOOD, 1839 (INSECTA, TRICHOPTERA): PROPOSED VALIDATION AND DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S.) 1580

By F. C. J. Fischer (*Rotterdam, 7C Lumeystraat*)

Stephens (1836, *Ill. Brit. Ent.*, Mand. **6** : 179) established the genus *Aphelocheira* for two species, viz., *flavomaculata* (Pictet) and *subaurata* (Stephens).

2. Westwood (1839, *Introd. mod. Classif. Ins.*, Gen. Syn. : 49) changed this generic name to *Diplectrona*, assuming *Aphelocheira* to be a junior homonym of his own earlier genus *Aphelocheirus* (1833, *Mag. nat. Hist. J. Zool.* **6** : 229), and designated " *P. flavomaculata* Pict." as type-species. The abbreviation *P.* is probably a printer's error for *H.*, as Pictet placed his species *flavomaculata* in the genus *Hydropsyche*.

3. The species *Aphelocheira flavomaculata*, described by Stephens, 1836, is not the same as Pictet's *Hydropsyche flavomaculata*, and it is certain that Westwood meant to designate Stephens's species as type-species of *Diplectrona*. The name of the species *Diplectrona flavomaculata* (Stephens) was changed to *Diplectrona felix* by MacLachlan (1878, *Rev. Syn. Trich.* : 376), and this name has remained in constant use.

4. Stephens's species *Aphelocheira subaurata*, listed earlier (1829) as *Tinodes subaurata*, has been synonymized with Pictet's older *Hydropsyche occipitalis*, now placed in MacLachlan's genus *Wormaldia*.

5. Application of the Law of Priority would necessitate a change of name of the well-known genus *Diplectrona* to *Aphelocheira*, a name which has not been used for almost a hundred years.

6. I therefore ask the International Commission :

(1) to use its plenary powers :
  (a) to suppress the generic name *Aphelocheira* Stephens, 1836, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
  (b) to set aside all designations of type-species for the nominal genus *Diplectrona* Westwood, 1839, made prior to the Ruling now requested and, having done so, to designate the nominal species *Diplectrona felix* MacLachlan, 1878, to be the type-species of that genus ;
(2) to place the generic name *Diplectrona* Westwood, 1839 (gender : feminine) type-species, by designation under the plenary powers in (1)(b) above, *Diplectrona felix* MacLachlan, 1878, on the Official List of Generic Names in Zoology ;
(3) to place the specific name *felix* MacLachlan, 1878, as published in the binomen *Diplectrona felix* (type-species of *Diplectrona* Westwood, 1839) on the Official List of Specific Names in Zoology ;
(4) to place the generic name *Aphelocheira* Stephens, 1836 (as suppressed under the plenary powers in (1)(a) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

Bull. zool. Nomencl., Vol. 20, Part 5. October, 1963.

SCELOPORUS TORQUATUS WIEGMANN, 1828 (REPTILIA): PROPOSED VALIDATION UNDER THE PLENARY POWERS.

Z.N.(S.) 1582

By Hobart M. Smith (*Department of Zoology and Museum of Natural History, University of Illinois, Urbana, Illinois, U.S.A.*)

As pointed out by Smith in 1936 (*Univ. Kansas Sci. Bull.* **24** : 539), *Sceloporus torquatus* Wiegmann, 1828, a name in common usage for many years for a widespread, common and polytypic (three subspecies) species of lizard of central Mexico, is an expired junior secondary homonym of *Stellio torquatus* Wied, 1820, now known as *Tropidurus torquatus*. As pointed out earlier to me by Dr. Joseph R. Bailey, in 1830, Wagler (*Natürliches System der Amphibien* : 146) placed *Sceloporus torquatus* (also *S. spinosus* and *S. grammicus*) in the genus *Tropidurus*, in which the combination *Tropidurus torquatus* (Wied, 1820) had already been made by Wied in 1824 (*Abb. Nat. Bras.*). No substitution was made by Wagler for the junior homonym, nor in subsequent literature until 1936 when Smith, following the policy often adopted in that period, regarded all junior secondary homonyms, expired or active, as permanently suppressed as of the date of announcement of awareness of homonymy. The junior name was therefore rejected as a permanently suppressed homonym by Smith (*loc. cit.*), who selected *Sceloporus ferrariperezi* Cope, 1885, as the next available name for the species. This name was generally accepted for the species formerly designated as *Sceloporus torquatus* from 1936 until 1950, when Smith and Taylor (*Bull. U.S. Nat. Mus.* **199** : 121) returned to *torquatus* instead of *fexrvriperezi* with the rationale that junior secondary homonyms were no longer to be regarded as permanently suppressed, and could be utilized if the state of homonymy had expired. Most references to the species since that date have utilized the name *torquatus* as was universally the case from about 1873 to 1936.

The 1961 Code clearly implies in Art. 59s that all junior secondary homonyms rejected before 1961 are to be regarded as permanently suppressed and are not to be revived. The automatic provisions of this Code therefore require that the name *Sceloporus ferrariperezi* again be revived for the species.

It is my present view that reversion to *ferrariperezi* is contrary to the guiding spirit of the Code, namely, the maintenance of stability of nomenclature: *torquatus* has been used for a much longer period, is better fixed in biological as well as systematic literature, is more euphonious and is more descriptively appropriate. It would be very disturbing for official sanction to be given to the addition of still further vicissitudes to the already chequered history of nomenclature of this species.

Accordingly the Commission is hereby requested:

(a) to set aside under the plenary powers the rejection by Smith, 1936, of *Sceloporus torquatus* Wiegmann, 1828, as a junior secondary homonym of *Stellio torquatus* Wied, 1820; and

(b) to place the specific name *torquatus*, as used in the combination *Sceloporus torquatus* Wiegmann, 1828, syntypes Nos. 628–631 in the Zoological Museum of Berlin, on the Official List of Specific Names in Zoology.

THE GENERIC NAME *MACROPUS* SHAW, 1790 (MAMMALIA). Z.N.(S.) 1584

By J. H. Calaby (*Division of Wildlife Research, C.S.I.R.O., Canberra*),
G. Mack (*Queensland Museum, Brisbane*),
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The generic name *Macropus* Shaw, 1790 (*The Naturalists' Miscellany*, Pl. 33 and text) is commonly applied to the kangaroos, and in particular to the group of great kangaroos of which the Grey Kangaroo is a member. Its type-species is *Macropus giganteus* Shaw, 1790 (*loc. cit.*) a name universally accepted as a junior synonym of *Mus canguru* Statius Müller, 1776 (*Des Ritters C. von Linné* . . . Supplementsband : 62, Nürnberg). It is also a junior secondary homonym of *Jaculus giganteus* Erxleben, 1777 (*Syst. Règn. Anim.* : 409) which is itself a replacement name for *Mus canguru* Statius Müller.

At present there is no agreement on the applicability of the name *Mus canguru*. Iredale and Troughton (1937, *Rec. Aust. Mus.* **20** : 67–71 ; 1962, *Proc. Linn. Soc. N.S.Wales* **87** : 177–184) and Troughton (1941, *Furred Animals of Australia*, and subsequent editions) hold that *Mus canguru* is the name of the Whiptail Wallaby, while Raven (1939, *J. Mammal.* **20** : 50–57), Tate (1948, *Bull. Amer. Mus. nat. Hist.* **91** : 233–351), Morrison-Scott and Sawyer (1950, *Bull. Brit. Mus. nat. Hist.* **1** : 45–50), and ourselves (1962, *Mem. Qd. Mus.* **14** : 25–31) hold that it is the name of the Grey Kangaroo.

The Whiptail Wallaby and the Grey Kangaroo are commonly placed in separate genera and the name *Macropus* Shaw, 1790 is the earliest valid name for either. The ordinary application of the Code to this case will continue this state of instability, since the identification of the type-species cannot be made with absolute certainty. We therefore request the Commission to establish stability in this case. The facts are as follows :—

2. In 1770, Cook's party visited the Endeavour River in what is now Queensland, Australia, and obtained three specimens of kangaroos. An account of the voyage was subsequently published by Hawkesworth (1773, *An account of the voyage . . . in the Southern Hemisphere . . . by . . . Captain Cook* 3) who gave vernacular accounts of the specimens obtained.

3. In 1776, Statius Müller used Hawkesworth's account of one of these specimens (a young male weighing 38 lbs. shot by Lieutenant Gore on 14th July 1770) as the basis of a new name *Mus canguru*. He stated that it came from " Endeavour Rivier in Südamerica ". This name was not subsequently used for any species of kangaroo or wallaby until 1937, when Iredale and Troughton re-introduced it (see 11 below).

4. In 1777, Zimmermann (*Specimen zoologiae geographicae* . . . ; 526, Leyden), independently of Statius Müller, gave the name *Yerboa gigantea* to the kangaroo of Cook's voyage. He also based his account on Hawkesworth, but mentioned an additional account by Banks (who accompanied the expedition) and the fact that a specimen of it had been taken alive from Africa to Holland. From the data given by Zimmermann, it is clear that his description embraces Hawkesworth's account of more than one of Cook's

specimens and hence possibly more than one species. Zimmermann's 1777 work has since been listed as not available for zoological nomenclature (*Bull. zool. Nomencl.* **4** : 547) ; thus *Yerboa gigantea* carries no more status than a vernacular name.

5. In 1777, Erxleben (*Syst. Règn. Anim.* : 409) and Schreber (*Säugethiere,* **3** : 552) used *giganteus* as the specific name of this species (by Erxleben with *Jaculus*, by Schreber with *Didelphys*). Page 409 of Erxleben's work was published before volume 3, page 552 of Schreber (see Sherborn *Proc. zool. Soc. Lond.* **1891** : 588 footnote) and in it *J. giganteus* is proposed as a replacement name for *M. canguru* Statius Müller and is thus its objective synonym.

6. In 1790, Shaw used the generic name *Macropus* for the first time, and in combination with the name *gigantea.* The name *Macropus giganteus* forms the heading of the Latin text and the name " *Yerboa gigantea* Zimmermann " is included. The names proposed by Erxleben, Schreber, and Statius Müller are not mentioned, and other names given are in the vernacular. Since none of the names included is a valid name for the purposes of zoological nomenclature, *Macropus giganteus* Shaw, 1790 must be regarded as a new name and, by monotypy, as the type-species of *Macropus* Shaw.

7. In 1800, Shaw (*General Zoology* **1** : 505) proposed the name *Macropus major* as a replacement for *M. giganteus.* He cited *M. giganteus* Shaw, 1790, " *Didelphis gigantea* Gmelin ", 1788, and " *Didelphis gigantea* Schreber ", 1777 as synonyms. Schreber is known to have been familiar with Erxleben's work which preceded his (see above) and *D. gigantea* Schreber is merely *J. giganteus* Erxleben in a new combination. Further *J. giganteus* Erxleben is an objective synonym of *Mus canguru* Statius Müller. Thus, *Macropus major* is an objective synonym of *Mus canguru* Statius Müller (Article 72(d)).

8. Between 1950 and 1925, the authors of all major taxonomic works accepted the name *Macropus giganteus* (Zimmermann) for the Grey Kangaroo of Eastern Australia. (See Thomas, *Catalogue of the Marsupialia and Monotremata in the collection of the British Museum,* 1888 ; and Cabrera, *Monotremata Marsupialia, Genera Mammalium.* Madrid, 1919.)

9. In 1925, Iredale and Troughton (*Aust. Zool.* **3** : 311–316) introduced instability by presenting some evidence which, in their opinion, showed that the name *M. giganteus* did not refer to the Grey Kangaroo but to the Wallaroo, a species commonly known as *Macropus robustus* or *Osphranter robustus.*

10. In 1934, Iredale and Troughton (" Checklist of Mammals recorded from Australia ", *Aust. Mus. Mem.* **6**) listed the names *Mus canguru* and *Yerboa gigantea* as synonyms which they referred to " Captain Cook's Kangaroo ". They checklisted this " species " but gave no clue to its identity beyond referring to their earlier (1925) paper. They listed the Grey Kangaroo under the name *Macropus major* Shaw, 1800 (*General Zoology* **1** : 505), a name that was generally regarded as a junior synonym of *M. giganteus* (Zimmermann) and is an objective synonym of *Jaculus giganteus* Erxleben, 1777 and *Mus canguru* Statius Müller, 1776. Iredale and Troughton (without comment) gave the type-locality of *Macropus major* Shaw as " Sydney, New South Wales ".

11. In 1937, Iredale and Troughton revised their opinions on the identity

of *Mus canguru* and *Yerboa gigantea* and concluded that the species was that commonly called the Whiptail Wallaby. They dismissed the Grey Kangaroo and the Wallaroo. They called the Whiptail *Wallabia canguru* and placed the name *Yerboa gigantea* Zimmermann in synonymy. (*Wallabia* Trouessart, 1905 (*Cat. Mamm. viv. et foss.* Suppl. fasc. IV : 834) is commonly used for the group of wallabies with which the Whiptail is universally placed). Iredale and Troughton do not appear to have been aware that their action in calling the Whiptail *Mus canguru* also required the transfer of the generic name *Macropus* to these wallabies.

12. Subsequently, Raven (1939, *J. Mammal.* **20**), Tate (1948, *Bull. Amer. Mus. nat. Hist.* **91**), Morrison-Scott and Sawyer (1950, *Bull. Brit. Mus. nat. Hist.* **1**) and ourselves (Calaby, Mack and Ride, 1962, *Mem. Qd. Mus.* **14** : 25–31) have concluded that it is probable that *Mus canguru* should be referred to the Grey Kangaroo. However, it is clear that Cook's expedition collected more than one species of MACROPODIDAE at the Endeavour River and the argument will continue as to which of these the name *Mus canguru* (and *Macropus giganteus*) should be referred. Unfortunately, no specimens from this expedition are extant and the three species involved in the argument are often placed in separate genera (*Macropus* Shaw, 1790, *Osphranter* Gould, 1842, *Wallabia* Trouessart, 1905, or *Protemnodon* Owen, 1874). Morrison-Scott and Sawyer attempted to solve the problem by designating a " photolectotype " for *Mus canguru.* This was a photograph of a skull of a kangaroo in the Royal College of Surgeons London (since destroyed) which was known to have been obtained on Cook's voyage. Unfortunately, there can be no question of lectotype since only one specimen is mentioned in the Statius Müller description of *M. canguru.*

13. Since the name *giganteus* in its various usages relating to kangaroos and wallabies is universally accepted as a synonym of *Mus canguru* Statius Müller, and since Shaw himself recognised the synonymy of *Macropus giganteus* Shaw and *D. gigantea* Schreber (and thus *Jaculus giganteus* Erxleben and *Mus canguru* Statius Müller), Ride (1963, in press) has selected the holotype of *Mus canguru* Statius Müller as the lectotype of *Macropus giganteus* Shaw, 1790. This specimen was among the material described in the accounts which Shaw used as the basis for his designation of his new species. Before lectotype selection all of this material was syntypical (Article 73(c)(i)). This action should be deemed to have been taken before our proposal to designate (below) a neotype for *Mus canguru. Macropus giganteus* Shaw, 1790 thus becomes a junior objective synonym of *Mus canguru* Statius Müller, 1776.

14. Doubts as to the identity of *Mus canguru* should be removed by the designation of a neotype for that species. Accordingly, we request that the International Commission on Zoological Nomenclature recognise as the valid neotype of the nominal species *Mus canguru* Statius Müller, 1776, the specimen of a Grey Kangaroo, male skin and skull, Queensland Museum No. J 10749, collected 24th November 1960, by D. P. Vernon and S. Breeden at Kings Plains, 20 miles south of the Endeavour River. This specimen is nominated and illustrated in Calaby, Mack and Ride (1961, *Mem. Qd. Mus.* **14** : 25–31, Pls. V–VIII).

15. Accordingly we request that the International Commission on Zoological Nomenclature:

(1) place the generic name *Macropus* Shaw, 1790 (gender : masculine), type-species, by monotypy, *Mus canguru* Statius Müller, 1776, on the Official List of Generic Names in Zoology;

(2) place the following specific names on the Official List of Specific Names in Zoology:

(a) *canguru* Statius Müller, 1776, as published in the binomen *Mus canguru*, as defined by the neotype designated in para. 13 above (type-species of *Macropus* Shaw, 1790);

(b) *major* Shaw, 1800, as published in the binomen *Macropus major* (type-locality Sydney, New South Wales, as restricted by Iredale and Troughton 1934, and supported by Tate 1948);

(3) place the family-group name MACROPODIDAE (correction of MACROPIDAE) Gray, 1821 (*Lond. medic. Repos.* **15**(1) : 308) (type-genus *Macropus* Shaw, 1790) on the Official List of Family-Group Names in Zoology;

(4) place the family-group name MACROPIDAE Gray, 1821 (type-genus *Macropus* Shaw, 1790) (an incorrect original spelling for MACROPODIDAE) on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

ORTHOLITHA HÜBNER, [1825]: PROPOSED VALIDATION UNDER THE PLENARY POWERS (INSECTA, LEPIDOPTERA). Z.N.(S.) 1585

By R. Alvarado (*Madrid, Spain*)

The present application, submitted at the request of my friend the well-known Spanish Lepidopterist R. Agenjo (Instituto Espanol de Entomologia), is designed to prevent the replacement of the generic name *Ortholitha* Hübner, [1825], by *Phasiane* Duponchel, 1829.

2. The generic name *Ortholitha* was first published by Hübner, in 1821 (*Index. exot. Lep.* : [3]) with *Petrophora linearis divisata* Hübner as type-species by monotypy. This generic name is a junior objective synonym of *Petrophora* Hübner [1811] (*Samml. exot. Schmett.* **1** : pl. [20]) the type of which, by monotypy, is also *P. linearis divisata*.

3. In [1825] (*Verz. bekannt. Schmett.* (22) : 338) Hübner again used the generic name *Ortholitha*, but for a different genus including four species : *palumbata* (*palumbaria* Schiff.) ; *coarctata* Schiff. ; *bistrigata* Hübner ; *coassata* (*duplicata* Hübn.). The type of this genus was designated by Lhomme in the *Cat. Lépidoptères de France* **1** : 456–457, 1923–1935) in the following manner :

> "*Ortholitha* Hübner, 1826
> type : *mucronata* Scopoli
> 1184. *mucronata* Scopoli (1763) : Stz., vol. IV, p. 158, pl. 6 i=
> *plumbaria* Fabricius (1775) : Stgr., no. 3151 ; B. vol. V, p. 473 ;
> B.J., pl. 48, f.9 ; Clt., vol.(1), p. 105, pl. 16, f. 319–321."

Hübner's *Ortholitha palumbata* and Denis & Schiffermüller's *Geometra palumbaria* are both misspellings of *Phalaena plumbaria* Fabricius. *Phalaena mucronata* Scopoli is not a synonym of this species, though congeneric with it.

4. The name *Ortholitha* Hübner, [1825] has been in use for over 50 years. In 1962, C. Herbulot (*Alexanor* 2(5) : 152) replaced it by *Phasiane* Duponchel, 1829 (*Hist. nat. Lepid. France* **7**(2) : 109), type-species, by original designation, *Phasiane palumbaria*.

5. I draw the attention of interested lepidopterists to the present application and I ask the International Commission on Zoological Nomenclature :

(1) to use its plenary powers to suppress the generic name *Ortholitha* Hübner, 1821, for the purposes of both the Law of Priority and the Law of Homonymy ;

(2) to place the generic name *Ortholitha* Hübner, [1825] (gender : feminine), type-species, by designation by Lhomme, 1923, *Phalaena plumbaria* Fabricius, 1775, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *plumbaria* Fabricius, 1775, as published in the binomen *Phalaena plumbaria* (type-species of *Ortholitha* Hübner, [1825]) on the Official List of Specific Names in Zoology ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :

- (a) *Ortholitha* Hübner, 1821 (as suppressed under the plenary powers in (1) above) ;
- (b) *Phasiane* Duponchel, 1829 (a junior objective synonym of *Ortholitha* Hübner, [1825]).

KROHNIA LANGERHANS, 1880 (CHAETOGNATHA): PROPOSED VALIDATION UNDER THE PLENARY POWERS. Z.N.(S.) 1586

By R. Alvarado and I. Moreno (*Museo Nacional de Ciencias Naturales, Madrid, Spain*)

The object of the present proposal is to request the use of the plenary powers to add to the Official List of Generic Names the nominal genus *Krohnia* (Chaetognatha) as used by Langerhans, 1880, " Die Wurmfauna von Madeira " (*Z. wiss. Zool.* **34** : 132–136) with the type-species *Krohnia hamata* (Moebius) (=*Sagitta hamata* Moebius, 1875, *Jber. Comm. wiss. Untersuch. dtsch. Meere*, Jahrg. II–III : 158, tab. 3, figs. 13–16).

2. The name *Krohnia* Langerhans is a junior homonym of *Krohnia* Quatrefages, 1865 (*Annelés* **2** : 157) proposed for a genus of ALCIOPIDAE which, since Langerhans, has been considered a synonym of *Alciope*. Langerhans wrote : " Der name *Krohnia* ist von Quatrefages (*Annelés* II. p. 157) für eine Alciopidengattung angewendet worden. Nachdem es sich inzwischen gezeigt, dass Quatrefages' Definition vielmehr dem Genus *Alciope* selbst zukommt, ist er frei und es scheint mir billig, ein Genus unserer kleinen Familie, die Niemand besser bearbeitet hat, als August Krohn, nach ihm zu nennen ". Fauvel in 1923 (*Faune de France*, Polychètes : 203) includes *Krohnia* Quatrefages only as a synonym of *Alciopa* and of *Callizonella* (: 211, 215).

3. *Krohnia* Langerhans was replaced by *Eukrohnia* Ritter-Zahony in 1909 (Die Chaetognathen des Gazelle-Expedition, *Zool. Anz.* **34** : 792). Ritter-Zahony wrote : " *Eukrohnia* n. nov. *hamata* (Möb.). Die Änderung des bisher gebraülichen von Langerhans in das System der Chaetognathen eingeführten Namens war notwendig. Quatrefages (*Hist. Ann.* II, p. 157) nannte zuerst eine Alciopidengattung *Krohnia*. Sie erwies sich später als identisch mit der Gattung *Alciope* selbst. Daher hatte Langerhans (*Zeitschr. wiss. Zool.*, Bd. 34, S. 136), zu einer Zeit, da die Nomenclaturregeln noch nich bestanden den Namen *Krohnia* für frei gehalten und ihn neuerdings in andern Sinne angewendet."

4. Both *Krohnia* and *Eukrohnia* have been in use since 1909 and authors have described species as belonging to one genus or the other. As far as we know, nobody has realised that the name *Eukrohnia* is a substitute name, and authors have therefore used it as though it were the name of a new genus described by Ritter-Zahony in 1909. Appendix D.15 of the Code recommends that a personal name should not be used in the formation of a compound genus-group name.

5. There is no problem of family-group names in this case, since families have not been established in the phylum Chaetognatha.

6. Therefore we ask the International Commission on Zoological Nomenclature to :

(1) use its plenary powers to suppress the generic name *Krohnia* Quatrefages, 1865, for the purposes of both the Law of Priority and the Law of Homonymy ;

(2) to place the generic name *Krohnia* Langerhans, 1880 (gender : feminine), type-species, by original designation, *Sagitta hamata* Möbius, 1875, on the Official List of Generic Names in Zoology ;

(3) to place the specific name *hamata* Möbius, 1875, as published in the binomen *Sagitta hamata* (type-species of *Krohnia* Langerhans, 1880) on the Official List of Specific Names in Zoology ;

(4) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
    (a) *Krohnia* Quatrefages, 1865 (as suppressed under the plenary powers in (1) above) ;
    (b) *Eukrohnia* Ritter-Zahony, 1909 (a junior objective synonym of *Krohnia* Langerhans, 1880) ;
    (c) *Kronia* Kimber, 1865 (*Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **22** : 242) (an incorrect spelling for *Krohnia* Quatrefages, 1865).

PROPOSED REJECTION OF NINE SPECIFIC NAMES OF HOLOTHURIOIDEA (ECHINODERMATA). Z.N.(S.) 1587

By Ailsa M. Clark (*British Museum* (*Natural History*), *London*)

It is proposed that the names in the left-hand column below should be suppressed in order that the better-known names (of which they are, or could be, senior synonyms) on the right should not be invalidated.

(1) *Holothuria guamensis* Quoy & Gaimard, 1833	*Microthele nobilis* (Selenka), 1867
(2) *Holothuria lucifuga* Quoy & Gaimard, 1833	*Holothuria moebii* Ludwig, 1883
(3) *Holothuria albifasciata* Quoy & Gaimard, 1833	?*Holothuria coluber* (Semper), 1868*
(4) *Holothuria lutea* Quoy & Gaimard, 1833	?*Stichopus variegatus* Semper, 1868*
(5) *Holothuria pentagona* Quoy & Gaimard, 1833	*Pentacta australis* (Ludwig), 1875
(6) *Fistularia fusca* Quoy & Gaimard, 1833	*Polycheira rufescens* Brandt, 1835
(7) *Stichopus leucospilota* Brandt, 1835	*Holothuria vagabunda* Selenka, 1867
(8) *Thyone buccalis* Stimpson, 1856	*Stolus sacellus* Selenka, 1867
(9) *Holothuria timama* Lesson, 1830	*Holothuria aculeata* (Semper), 1868

The six specific names of Quoy & Gaimard were discussed by Cherbonnier (1952) who decided that *Holothuria albifasciata* and *lutea* were possibly synonymous with *Holothuria coluber* and *Stichopus variegatus* respectively while the four other species were definitely synonymous with those listed opposite. Similarly in 1951 Cherbonnier recognised *Holothuria timama* Lesson as synonymous with *H. aculeata* (Semper).

The two remaining names in the left-hand column, *Stichopus leucospilota* Brandt and *Thyone buccalis* were earlier recognised as conspecific with *H. vagabunda* and *Stolus sacellus* respectively but their priority has been deliberately ignored by most specialists in favour of the better known names. For instance Panning (1929–35) in his monograph on the genus *Holothuria* (sensu lato) used the six names in the right-hand column which came within the scope of his work, while Cherbonnier (1955) used *H. vagabunda* with *leucospilota* listed among the references and similarly used *Microthele nobilis* rather than *guamensis*. Heding too (1934 and 1940) used the name *vagabunda*.

1. *Holothuria guamensis* Quoy & Gaimard, 1833, p. 137.

The type-specimen seems to be lost.

Apart from simple repetitions of the original record, *H. guamensis* has only been mentioned by Lampert (1855), who notes only that the short description makes placing it impossible, Théel (1886), who notes that " it is a

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* The question marks signify that in the view of Cherbonnier (1952) these two names are only possibly synonyms of the two on the left.

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very dubious form, which needs re-examination", Panning (1929) in his monograph on *Holothuria* (in the wide sense) [which is still the definitive work], who lists *guamensis* among the unrecognisable species, and by Cherbonnier (1952), who reproduces Quoy and Gaimard's figure and their short description, which includes only two characters of taxonomic importance, the colour and the number of tentacles (26). Although the latter is four more than has been recorded for *Microthele nobilis* (Selenka), 1867. Cherbonnier believes that the distinctive colour pattern identifies *guamensis* with *nobilis* out of the four possible species which occur at the type locality, Guam.

Notwithstanding this statement, in 1955 Cherbonnier used the name *Microthele nobilis* as a heading with the reference to *H. guamensis* among those listed below it.

The specific name *nobilis* (in combination with various generic names such as *Mülleria*, *Actinopyga* and *Holothuria* (*Microthele*)) was used for additional material by Semper (1868), Théel (1886), Fisher (1907), Panning (1929) and following authors, including Heding and H. L. Clark, but not Domantay.

In 1881 Ludwig had shown that *Mülleria nobilis* Selenka, 1867 is synonymous with *Holothuria maculata* Brandt, 1835 (not *H. maculata* Chamisso and Eysenhardt, 1821) and the name *maculata* was used by several authors between 1881 and 1929 (notably Lampert, Mitsukuri, Erwe, Bedford, and Pearson) as well as by Domantay since 1929 despite the fact that it is a junior homonym.

2, 3 and 4. *Holothuria lucifuga, albifasciata* and *lutea* Quoy & Gaimard, 1833, pp. 134, 132 and 140 respectively.

All three were referred to the genus *Stichopus* by Brandt (1835) followed by Selenka (1867), Semper (1868), Lampert (1885), Théel (1886) and Panning (1929), none of whom added any new records. However, H. L. Clark (1922) in his revision of *Stichopus* noted that *lucifugus* is unidentifiable but might represent the same species as *Holothuria pulchella* Selenka, that *albifasciatus* is simply unidentifiable and that *luteus* is unidentifiable but is more likely to be synonymous with *Stichopus variegatus* than with *S. horrens*.

Cherbonnier (1952) found that the type of *lucifuga* still exists in the Paris Museum and is conspecific with *Holothuria moebii* Ludwig, 1883, which name has been widely used for additional material (either as a species or as a subspecies of *H. lubrica*) notably by Lampert, Théel, Mitsukuri, Ohshima, Panning and Chang. The types of *H. albifasciata* and *lutea* are lost. Concerning *albifasciata*, Cherbonnier notes that it is possibly synonymous with *Halodeima coluber* (Semper), 1868, while *lutea* he says is possibly a synonym of *Stichopus variegatus* Semper, 1868. Both *H. coluber* and *S. variegatus* have been recorded a number of times in the literature, notably by H. L. Clark and Panning.

5. *Holothuria pentagona* Quoy & Gaimard, 1833, p. 135.

Since its inception the name *pentagona* has been mentioned by Brandt (1835), who placed it in the genus *Stichopus* and by Semper (1868), who considered it to be a synonym of *Colochirus tuberculosus* (Quoy & Gaimard), 1833, p. 131. Semper was followed by Lampert (1885), Théel (1886) and other workers, though, H. L. Clark (1922) commented simply that *pentagona* is a *Pentacta* (of which he considered *Colochirus* is a synonym).

Cherbonnier (1952) re-examined the type specimen and declared that it is conspecific with *Colochirus australis* Ludwig, 1875 (of which the type-locality was similarly Sydney, N.S.W.).

The name *Colochirus australis* was referred by Ludwig himself (1887) to the synonymy of the South African species *Actinia doliolum* Pallas, 1766. The following authors including Erwe (1913), Ekman (1918) and Cotton and Godfrey (1942) used the name *Colochirus doliolum* (Pallas) for the Australian species but H. L. Clark (1932) recognised *australis* as distinct. Again in his monographs on the Echinoderms of Australia (1938 and 1946) H. L. Clark used the name *Pentacta australis* (Ludwig). This was followed by Panning (1949), though maintaining the old generic name *Colochirus*, and by Hickman (1962) who uses *Pentacta australis*.

Except for the original reference (with that of Brandt) and Cherbonnier's redescription, the name *pentagona* has never been used.

Since this common south Australian species has already undergone one change of name it is undesirable to subject it to another.

6. *Fistularia fusca* Quoy & Gaimard, 1833, p. 126.

The name *fusca* was referred to by Brandt (1835) who transferred it to *Chiridota*, followed by Dujardin & Hupé (1862), Selenka (1867), who transferred it to *Synapta* followed by Semper (1868), Lampert (1885) and Théel (1886), while H. L. Clark (1907) noted that it might belong to *Euapta* (or to *Opheodesoma*, *Polyplectana*, *Synapta* or *Synaptula*).

By none of these workers was any additional material ascribed to *fusca*.

Cherbonnier (1952) redescribed the type-specimen of *fusca* and found it to be conspecific with *Polycheira rufescens* Brandt, 1835. Since 1881, when Ludwig re-examined Brandt's type of *rufescens* and stated that *Chiridota variabilis* Semper, 1868 is a synonym of it, the name *rufescens* has been widely used for additional material of the species, notably by H. L. Clark, Ohshima and Heding.

7. *Stichopus* (*Gymnochirota*) *leucospilota* Brandt, 1835, p. 251.

The name *leucospilota* has been mentioned by Selenka (1867) under the generic name *Stichopus* and by Semper (1868) as ?*Stichopus leucospilota*. Ludwig (1881) re-examined the type-specimen and declared that it is conspecific with *Holothuria vagabunda* Selenka, 1867. Notwithstanding this, Ludwig himself persisted in using the name *vagabunda* (1882, 1883, 1888, etc.) and Lampert (1885) stated that although he was well aware that the use of *vagabunda* offended against the prior rights of *leucospilota*, the excellent name *vagabunda* has become so well established that its rival *leucospilota* could not drive it out. Consequently the name *vagabunda* continued to be used, notably by Théel, Sluiter, Koehler and Vaney, Pearson, Fisher, Erwe and Ekman until H. L. Clark (1920) re-stated that *leucospilota* " must unquestionably take " priority and used it instead of *vagabunda* ; this he did again in 1921, 1922, 1932, 1938 and 1946. H. L. Clark's usage was followed by Deichmann, by several Australian workers not specialists on echinoderms, by Utinomi (1959), Tortonese (1955), and by Cherbonnier in a single paper of 1955.

Otherwise the recent holothurian specialists have all kept to the name *vagabunda*, notably Panning, Heding and Cherbonnier in other papers up to the present day.

8. *Thyone buccalis* Stimpson, 1856.

The type-locality of *buccalis* is Port Jackson, N.S.W.

Since its inception, the name *buccalis* has been used by Semper (1868), for additional Australian material, Lampert (1885), who quoted the earlier records only, Théel (1886), who described some of Semper's specimens, Bell (1884) and H. L. Clark (1921), who referred to it additional Australian material. However, Théel's comment that *buccalis* may possibly be proved to be identical with *Thyone sacella* (Selenka), 1867, was repeated by H. L. Clark (1938), who in 1946 gave *Stolus sacellus* as a synonym. This was followed by Domantay (1962), although Panning (1949) had referred *buccalis* to a new genus *Pseudothyone* leaving *Stolus sacellus* as a distinct species.

Stolus sacellus Selenka, 1867, is the type-species of the genus *Stolus* and its type locality is Zanzibar.

The name has been used by Semper (1868), von Marenzeller (1882), Lampert (1885), Théel (1886), Studer (1889), Sluiter (1895), Pearson (1902), Vaney (1905), Mitsukuri (1912), Erwe (1913), H. L. Clark (1932), Panning (1949) and Cherbonnier (1955), most of them for additional material.

Cherbonnier (MS) agrees that *buccalis* and *sacellus* are synonymous (despite Panning's inclusion of them in different genera) but prefers the latter name despite its lack of priority, because it has been used so much more than *buccalis* by holothurian specialists.

9. *Holothuria timama* Lesson, 1830, p. 118.

Since its inception, the name *timama* has been used by Jaeger (1833) who referred it to the genus *Psolus* followed by Dujardin and Hupé (1862), but Semper (1868) put it (with a query) in the synonymy of *Holothuria marmorata* Jaeger, 1833, as did Lampert (1885), though giving it the heading of *Holothuria timama*. Théel (1886) lists it among the "incompletely known" species needing re-examination; this was repeated by Panning (1929) who spelled the name *timana*.

Finally Cherbonnier (1951) redescribed Lesson's type-specimen (also under the name *timana*) and declared that it is conspecific with *Holothuria aculeata* Semper, 1868, which name has been used by Lampert (1885), Théel (1886), Hérouard (1893), Lampert (1896), Pearson (1913) and Panning (1934) though without adding any additional records.

The International Commission on Zoological Nomenclature is therefore asked to preserve the accustomed terminology of the above holothurian species by taking the following action:

(1) use its plenary powers to suppress the following specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *guamensis* Quoy & Gaimard, 1833, as published in the binomen *Holothuria guamensis*;

(b) *lucifuga* Quoy & Gaimard, 1833, as published in the binomen *Holothuria lucifuga*;

(c) *albifasciata* Quoy & Gaimard, 1833, as published in the binomen *Holothuria albifasciata*;

(d) *lutea* Quoy & Gaimard, 1833, as published in the binomen *Holothuria lutea*;

- (e) *pentagona* Quoy & Gaimard, 1833, as published in the binomen *Holothuria pentagona*;
- (f) *fusca* Quoy & Gaimard, 1833, as published in the binomen *Fistularia fusca*;
- (g) *timama* Lesson, 1830, as published in the binomen *Holothuria timama*;
- (h) *leucospilota* Brandt, 1835, as published in the binomen *Stichopus leucospilota*;
- (i) *buccalis* Stimpson, 1856, as published in the binomen *Thyone buccalis*;

(2) place the specific names suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Specific Names in Zoology.

(3) place the following specific names on the Official List of Specific Names in Zoology:

- (a) *nobilis* Selenka, 1867, as published in the binomen *Mülleria nobilis*;
- (b) *moebii* Ludwig, 1883, as published in the binomen *Holothuria moebii*;
- (c) *coluber* Semper, 1868, as published in the binomen *Holothuria coluber*;
- (d) *variegatus* Semper, 1868, as published in the binomen *Stichopus variegatus*;
- (e) *australis* Ludwig, 1875, as published in the binomen *Colochirus australis*;
- (f) *rufescens* Brandt, 1835, as published in the binomen *Polycheira rufescens*;
- (g) *aculeata* Semper, 1868, as published in the binomen *Holothuria aculeata*;
- (h) *vagabunda* Selenka, 1867, as published in the binomen *Holothuria vagabunda*;
- (i) *sacellus* Selenka, 1867, as published in the binomen *Stolus sacellus*.

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EOSCORPIUS INFLATUS PEACH, 1882 (ARACHNIDA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS. Z.N.(S.) 1588

By W. D. Ian Rolfe (*Hunterian Museum, The University, Glasgow, Scotland*)

In 1882 (: 405–406) Peach described the supposed scorpion *Eoscorpius inflatus* from the " Scorpion Bed ", Glencartholm Volcanic Group (Calciferous Sandstone Series, Lower Carboniferous), of the River Esk near Langholm, Dumfriesshire. Peach noted that " it is just possible that this is not a portion of a scorpion, but that it is referable to the genus *Cyclus* (de Koninck) " and again that its " appearance . . . is much like a gigantic ostracod, and bears a great resemblance to *Beyrichia* ".

2. Thorell and Lindström (1885 : 18–19, 21–22) referred the species to their genus *Centromachus*, whereas Pocock (1911 : 28) regarded the species as " of doubtful generic position " and suggested that Peach's descriptions " recall the characters of the carapace of some genera of Anthracomarti, such as *Eophrynus* and *Kreischeria* ". Petrunkevitch (1949 : 153 ; 1953 : 27), the latest arachnologist to mention the species, states that " the holotype belonging to the Geological Survey in Edinburgh could not be found. Judging by its original description it does not belong to the genus *Eoscorpius* as defined by me here ".

3. Inspection of Peach's figures (1882, pl. 23, figs. 12–12d) and of topotype material (Hunterian Museum A128) immediately shows that Peach's scorpion was based on specimens of the ostracod *Tribolbina carnegiei* Latham, 1932 (: 358–359, fig. 7). This species was originally included in *Beyrichia gigantea* Jones, Kirkby & Brady, 1874. Peach's figure 12b shows the radiating fibrous nature of the replacement calcite referred to in Jones, Kirkby & Brady's (1884 : 88) description of specimens of *B. gigantea* from Glencartholm.

4. The omission of *E. inflatus* from Peach and Horne's faunal list (1903 : 846) from the Esk Water locality may be significant in showing that Peach realised his earlier error, for *Beyrichia gigantea* is listed (doubtless taken from Jones, Kirkby & Brady, 1884 : 88, or Jones & Kirkby, 1901 : 490). Mr. R. B. Wilson has kindly informed me that the Geological Survey, Edinburgh Office's records of specimens originally identified as *E. inflatus* were later emended to *B. gigantea* and then to *T. carnegiei*. The author and date of these manuscript changes is unknown, although the first correction may have been made by Peach. To the writer's knowledge there is no previously published record of this synonymy.

5. *Tribolbina carnegiei* Latham is thus a junior subjective synonym of *Eoscorpius inflatus* Peach. From Articles 67(j) and 70(a) of the 1961 Code of Zoological Nomenclature, the case should be referred to the Commission to decide whether the junior or senior synonym should be stabilised as type-species of *Tribolbina*. There would seem to be little useful purpose in substituting the senior synonym, especially since the junior name has been clearly cited in the many bibliographies on Ostracoda and in the recent " Treatise on Invertebrate Paleontology, part Q ".

The International Commission on Zoological Nomenclature is therefore requested:

(1) to use its plenary powers to suppress the specific name *inflatus* Peach, 1882, as published in the binomen *Eoscorpius inflatus*, for purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the generic name *Tribolbina* Latham, 1932 (gender: feminine), type-species by original designation *Tribolbina carnegiei*, on the Official List of Generic Names in Zoology;

(3) to place the specific name *carnegiei* Latham, 1932, as published in the binomen *Tribolbina carnegiei*, on the Official List of Specific Names in Zoology;

(4) to place the specific name *inflatus* Peach, 1882, as published in the binomen *Eoscorpius inflatus*, on the Official List of Rejected and Invalid Specific Names in Zoology.

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CURIMATA WALBAUM, 1792 (PISCES) : PROPOSITION À L'INSCRIPTION DE CE GENRE À L'INDEX OFFICIEL DES NOMS REJETÉS. Z.N.(S.) 1590

Par J. Géry (*C.N.R.S., Laboratoire Arago, Banyuls-sur-Mer*)

L'objet de la présente proposition est de demander à la Commission d'user de ses pleins pouvoirs pour supprimer le nom (supposé) générique *Curimata* Walbaum, 1792, et son espèce-type *Salmo* (*Curimata*) *marcgravii* Walbaum, 1792, le maintien de ces taxa étant préjudiciable à la stabilité de la Nomenclature pour les motifs ci-dessous.

HISTORIQUE : Pendant 100 ans, la majorité des ichthyologistes s'étaient entendus sur *Curimatus* Oken (ex Cuvier), 1817 (*Isis* **1** : 1182a), espèce-type *Salmo edentulus* Bloch, 1794 (*Naturgesch. Ausl. Fische* **8** : pl. 380), désignée par Eigenmann & Eigenmann (1889, *Ann. N.Y. Acad. Sci.* **4** : 415), pour caractériser le genre-type des CURIMATINAE (Erythrinidae, Characoidei, Cypriniformes).

Le nom *Curimata*, apparu pour la première fois (après le 1 janv. 1758) dans Walbaum (1792, *Artedi Genera Piscium*, Ichth. (éd. 2) 3) dans les combinasions *Salmo* (*Curimata*) *marggravii* (: 80) et *Salmo Curimata* (index), a été revalorisé en 1917 par Jordan & Evermann (*The Genera of Fishes* **1** : 50) en ces termes : " *Curimata* Walbaum, 80 ; type *Salmo marcgravii* Walbaum, based on ' *Charax maxilla superiore longiore* ' Gronow, which is *Salmo cyprinoides* L.—*Curimata* should replace *Curimatus* Cuvier for this genus ".

A la suite de Jordan & Evermann (1917), *Curimata* Walbaum a été adopté, comme nom générique, par les auteurs suivants :

Myers, 1929, *Ann. Mag. nat. Hist.* (10) **3** : 620 (qui donne *Curimatus* Oken comme synonyme de *Curimata* Walbaum).
Jordan, Evermann & Clark, 1930, *Rept. U.S. Comm. Fish.* (1928) (2) : 100
Schulze, Kukenthal & Heider, 1929, *Nomenclator Anim. Gen. Subgen.* **2** : 862, col. 1
Neave, 1939, *Nomenclator Zoologicus* **1** : 906
Fowler, 1940, *Proc. Acad. nat. Sci. Philad.* **91** (1939) : 253 (qui se réfère à Myers, 1929)
Eigenmann & Allen, 1942, *Fish. West-South America* : 292
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Fernandez-Yepez, 1948, *Bol. Tax.* **1**, Lab. Pesq. Caiguire : 37
Myers, 1949, *Copeia* **3**, Sept. 15 : 197
Fowler, 1950, *Arq. Zool.* **6** : 277
Travassos, 1951, *Dusenia* **2**(5) : 348–350
et d'autres.

L'auteur de la présente application se propose de montrer :

(1) Que le nom générique *Curimata* n'est pas de Walbaum, 1792, mais de Jordan & Evermann, 1917 ; (2) Que son espèce-type supposée, "*Salmo marcgravii* " Walbaum, 1792, a été mal identifiée.

L'auteur a été considérablement aidé par les Drs. M. Boeseman et L. B. Holthuis, et il est heureux de les remercier ici pour leur suggestion sur la valeur générique de *Curimata*, pour l'ensemble de leurs remarques critiques et pour l'accès aux textes originaux de Gronovius (1763), Walbaum (1792), Donndorff (1798) et Marcgrave (rééd. 1942).

(1) Auteur du nom générique *Curimata*

Il ressort de l'étude des *Petri Artedi sueci genera Piscium* etc. . . . (éd. 2) que, dans la combinaison *Salmo* (*Curimata*) *Marggravii*, le nom *Curimata* n'a pas été employé par Walbaum comme sous-genre (dont la notion n'existait d'ailleurs pas à cette époque), mais bien comme nom d'espèce, tandis que *Marggravii* n'est qu'une référence à l'auteur ancien Marcgrave, sans valeur spécifique, et ne fait pas partie d'une combinaison de noms scientifiques. On en trouvera confirmation : (a) dans l'index qui renvoie à l'espèce *Salmo Curimata*, et non à l'espèce *Salmo Marggravii* ou *Curimata Marggravii* ; (b) dans le contexte de l'ouvrage, où des taxa du groupe-espèce sont présentés de la même manière : *Cyprinus* (*Squalus*) : 28 ; *Cyprinus* (*Lugdunensis*) : 29 ; *Cyprinus* (*Umbra*) : 30 ; *Cyprinus* (*Annoni*) : 32 ; *Clupea* (*Hepsetoides*) : 40 ; etc. . . . ; et (c) dans le contexte d'un autre ouvrage peu connu, ayant suivi de peu celui de Walbaum, J. A. Donndorff, 1798, *Zool. Beytr. z.* 13. *Ausg. d. Linn. Natursyst.* 3, Amph. u Fische (retrouvé par M. Boeseman), où la même habitude de mettre les noms d'espèce entre parenthèses, commune à l'époque, est suivie assez généralement ; la combinaison *Salmo* (*Curimata*) *Marcgravii* (: 649), première émendation du mot *Marggravii*, est ainsi reprise avec le même sens et dans le même esprit de Walbaum.

Curimata Walbaum étant un nom spécifique, et *Marcgravii* un chironyme, le genre *Curimata* doit être attribué à Jordan & Evermann, 1917[1], en dépit du ralliement des auteurs cités au début, au nom générique *Curimata* Walbaum. En admettant toutefois que cette thèse, basée sur des indications précises mais non des preuves, ne puisse être adoptée, une autre conséquence de l'action de Jordan & Evermann rend nécessaire la suppression du nom *Curimata*.

(2) Identification de *Salmo (Curimata) marcgravii* Walbaum, 1792

Toujours à la suite de Jordan & Evermann, certains des auteurs déjà cités, et en particulier Eigenmann & Allen (1942), Schultz (1944), Fernandez-Yepez (1948) et Fowler (1950), ont admis implicitement que le *Charax* auquel Walbaum s'est référé est le deuxième, No. 378, de Gronovius (1763, *Zoophyl.* 1 : 123), du Surinam, lequel *Charax* avait été cité peu après par Linné (1766, *Syst. Nat.* (éd. 12) : 514) comme synonyme de son *Salmo cyprinoides*. Selon eux, *Curimatus* Oken était donc un synonyme objectif récent (isogénérotypique) de *Curimata* Walbaum.

Seul, semble-t-il, Travassos (1951) a constaté que *S.* (*Curimata*) *marcgravii* était basé sur le troisième *Charax*, No. 379, de Gronovius (1763), bien qu'il ne cite pas exactement Walbaum. Encore interprète-t-il ce *Charax* comme un synonyme de *S. cyprinoides* L., ce qui est insoutenable.

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[1] Sherborn (1902, *Index animalium* (sectio 1) : 273) est en réalité le premier à avoir cité, comme nom générique, *Curimata* Walbaum avec, comme référence (ligne suivante) "*Salmo curimata*, Donndorff".

Il a été possible de vérifier dans les éditions originales de Walbaum, 1792, et de Donndorff, 1798, que le premier auteur avait bien basé sa 56e espèce sur le No. 379, et qu'il avait donné intégralement la diagnose de Gronovius : " *Charax maxilla superiore longiore* : *corpore oblongo, gracili* : *dorso vix arcuato* ", de telle sorte qu'il ne peut y avoir aucune ambiguité, d'autant plus que Walbaum reprend le nom de *Curimata* déjà cité par Gronovius d'après Piso (Marcgrave).

Il apparait donc que Jordan & Evermann, peut-être trompés par la similitude du début des diagnoses des *Charax* Nos. 378 et 379 (toutes deux commencent par " *Charax maxilla superiore longiore* "), ont fait une erreur d'identification de l'espèce-type, laquelle, comme on vient de le voir, est incontestablement basée sur le *Charax* No. 379 de Gronovius=*Curimata* Piso (Marcgrave, 1648, *Hist. Rer. Nat. Bras.* **4** : 156), et Jonston (1650 ?, *Hist. Nat., de Piscibus* **5** : 194, fide Donndorff).

Or Valenciennes (in Cuv. & Val., 1849, *Hist. nat. Poiss.* **22** : 71 et 78), avait raisonnablement démontré que le " *Curimata* de Pison " (ou Marcgrave) se rapportait à *Prochilodus argenteus* Agassiz, 1829, type, par désignation ultérieure de Eigenmann (1910, *Rep. Princeton Univ. Exp. Patag.* **3**(4) : 424), du genre *Prochilodus* Agassiz, 1829 (*Sel. Gen. Spec. Bras.* : 63–64, pl. 38), car il avait pu examiner la figure de Marcgrave (1648) et son original conservé à Berlin dans le " *Liber Mentzelii* " (fol. 205). J. de Paiva Carvalho et P. Sawaya, dans la réédition portuguaise de Marcgrave (1942, Sao Paulo : LVI), confirment cette opinion, et Myers (1949), qui fait du *Charax* No. 379 un synonyme possible de *Salmo immaculatus* Linné, 1766 (: 514), est parvenu à une conclusion peu différente : " Description of the mouth and teeth of *immaculatus* leads me to think it must be a *Prochilodus*, but the single black spot (?) and other characters are confusing ".

Ces opinions enlèvent toute portée à celles de Müller & Troschel (1844, *Arch. Naturgesch.* **10**(1) : 85) et de Günther (1864, *Catal. Fishes Brit. Mus.* **5** : 299) qui ont tenté de suivre Bloch (1794 : 105), lequel pensait que son *Salmo unimaculatus* pouvait être rapporté au Curimate de Marcgrave. Enfin le *Charax* No. 379 ne peut pas non plus être rapporté à *Salmo cyprinoides* L., comme l'a proposé Travassos (1951), cette dernière espèce étant édentée, tandis que *S.* (*Curimata*) *marcgravii*=*Charax* No. 379 possède des " *dentes minutissimi vix conspicui* ".

En résumé, la synonymie de *Salmo* (*Curimata*) *marcgravii* s'établit comme suit:
[*Curimata* Marcgrave, 1648]
[*Curimata* : Jonston, 1650–1657]
[3e *Charax*=Charax No. 379 Gronovius, 1763]
? *Salmo immaculatus:* Linné, 1766 (fide Myers)
? *Charax immaculatus:* Meuschen, 1781, Index du *Zooph. Gronoviani* (fide Myers)
Salmo (*Curimata*) *Marggravii* Walbaum, 1792
Salmo Curimata Walbaum, 1792 (in index)
Salmo (*Curimata*) *Marcgravii* : Donndorff, 1798
? *Prochilodus argenteus* Agassiz, 1829 (fide Valenciennes).

La signification respective de *Curimata sens. auct.* et de *Prochilodus sens. auct.* se trouve remise en question par l'interprétation des faits exposés ci-dessus :

(a) Si on admet que *Curimata* Walbaum = *Curimata* Marcgrave, la démonstration de Valenciennes (1849) amène à remplacer le nom de *Prochilodus* par celui de *Curimata* et à chercher pour *Curimata auct.* un nom de remplacement. La continuité dans la signification des deux genres et des taxa du groupe-famille CURIMATINAE (genre-type *Curimata auct.*) et PROCHILODINAE (genre-type *Prochilodus auct.*) serait alors menacée dans les conditions prévues à l'Art. 41 du Code International de la Nomenclature (1961). Il est évident que la stabilité des espèce-types est aussi menacée, et la synonymie ci-dessus indique que *Prochilodus argenteus* pourrait être invalidé par *Salmo immaculatus* Linné, 1766, alors que cette espèce, qui n'a fait l'objet d'aucune étude sérieuse, est indéterminable, et que le nom doit être considéré comme un *nomen dubium* et (ou) *oblitum.*

(b) Si, au contraire, on préserve la validité de *Prochilodus* en admettant que *Salmo* (*Curimata*) *marcgravii* est indéterminable, le genre *Curimata auct.* se trouve basé sur une *species inquirenda.*

En conclusion, la Commission Internationale est priée, et ceci indépendamment de toute décision générale concernant l'acceptabilité de Walbaum, 1792 :

(1) d'user de ses pleins pouvoirs pour supprimer, en vue de toute application de la loi de priorité mais non de celle d'homonymie, les noms spécifiques suivants :
   (a) *curimata* Walbaum, 1792 (*Artedi Genera Piscium*, Ichth. (éd. 2) 3 : 80) publié dans le binôme *Salmo Curimata* ;
   (b) *immaculatus* Linné, 1766 (*Syst. Nat.* (ed. 12) **1** : 513), publié dans le binôme *Salmo immaculatus, nomen dubium* ;

(2) de déclarer que le nom *Curimata*, employé par Walbaum, 1792, dans le binôme *Salmo* (*Curimata*) *Marggravii*, est un nom spécifique et que le mot *Marggravii* (=*marcgravii*) ne fait pas partie d'une combinaison de noms scientifiques ;

(3) de mettre sur la Liste Officielle des noms de genres en zoologie les noms suivants :
   (a) *Curimatus* Oken (ex Cuvier), 1817 (*Isis* **1** : 1182a), espèce-type *Salmo edentulus* Bloch, 1794 (*Naturgesch. Ausl. Fische* **8** : pl. 380), désignée par Eigenmann & Eigenmann (1889, *Ann. N.Y. Acad. Sci.* **4** : 415) (genre : masculin) ;
   (b) *Prochilodus* Agassiz, 1829 (*Sel. Gen. Spec. Pisc. Bras.* : 62), espèce-type *Prochilodus argenteus* Agassiz, 1829 (*Sel. Gen. Spec. Pisc. Bras.* : 63, pl. 38), désignée par Eigenmann (1910, *Rep. Princeton Univ. Exp. Patag.* **3**(4) : 424) (genre : masculin) ;

(4) de mettre sur la Liste Officielle des noms d'espèces en zoologie les noms suivants :
   (a) *edentulus* Bloch, 1794, publié dans le binôme *Salmo edentulus*, espèce-type du genre *Curimatus* Oken, 1817 ;
   (b) *argenteus* Agassiz, 1829, publié dans le binôme *Prochilodus argenteus*, espèce-type du genre *Prochilodus* Agassiz, 1829 ;

(5) d'inscrire à l'Index Officiel des noms de genres rejetés en zoologie le nom

Curimata Walbaum, 1792, publié dans le binôme *Salmo* (*Curimata*) *Marggravii* comme nom spécifique, mais considéré par certains auteurs comme générique ;

(6) d'inscrire à l'Index Officiel des noms d'espèces rejetés en zoologie les noms suivants :
   - (a) *curimata* Walbaum, 1792, publié dans le binôme *Salmo Curimata*, nom supprimé en vertu des pleins pouvoirs en (1)(a) de cette proposition ;
   - (b) *immaculatus* Linné, 1766, publié dans le binôme *Salmo immaculatus*, nom supprimé en vertu des pleins pouvoirs en (1)(b) de cette proposition ;
   - (c) le chironyme *Marggravii* (=*marcgravii*), considéré à tort par certains auteurs comme un nom spécifique dans le binôme *Salmo* (*Curimata*) *Marggravii* Walbaum, 1792 ;

(7) de mettre sur la Liste Officielle des noms du groupe-famille en zoologie les noms suivants (Pisces ; Cypriniformes ; Characoidei) :
   - (a) CURIMATINAE Eigenmann & Eigenmann (1889, *Ann. N.Y. Acad. Sci.* **4** : 409), genre-type *Curimatus* Oken (ex Cuvier), 1817 ;
   - (b) PROCHILODINAE Eigenmann (1910 : 424), genre-type *Prochilodus* Agassiz, 1829.

TINODES PUSILLUS McLACHLAN, 1862 (INSECTA, TRICHOPTERA): PROPOSED VALIDATION UNDER THE PLENARY POWERS.

Z.N.(S.) 1592

By D. E. Kimmins (*British Museum* (*Natural History*), *London*)

The object of this application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to validate the species-group name *pusillus* McLachlan, 1862, as published by McLachlan in the binomen *Tinodes pusillus* (Curtis) McLachlan, by suppressing the overlooked but earlier species-group name *pusillus* Curtis, 1834 as published in the binomen *Tinodes pusillus* Curtis. The relevant facts are set out in the following paragraphs.

2. The species-group name *Tinodes pusillus* was first published by Curtis, 1834, *Lond. Edinb. phil. Mag.* (3) **4** : 216, as the second of two originally included species in the genus *Tinodes* Curtis, 1834. It was referred to as " pusillus ? *Fab. Syst. Ent.* 2. 81. 33 ", the interrogation mark indicating that he was doubtful about the accuracy of his identification. His doubt was justified, since it is now accepted that the Fabrician species *pusilla* (described in the genus *Phryganea*) is a *Psychomyia* (family Psychomyiidae). Curtis gave a brief diagnosis of the specimens he had before him in the form of a dichotomic table, the second half of the couplet distinguishing them from the other species (*luridus* Curtis) placed by him in *Tinodes*. This conforms to one of the conditions laid down in Art. 12.

3. McLachlan, 1862, *Ent. Ann.* : 37, believing Curtis's species *pusillus* to be undescribed, gave a fairly full diagnosis of it from examples (which he considered to be *pusillus* Curtis) in his own collection, adding that he had seen several specimens in the Curtis collection. Wallengren, 1870, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **27** : 148, identified *Tinodes pusillus* (Curtis) McLachlan with *Phryganea aureola* Zetterstedt, 1840, but McLachlan, 1871, *Ent. mon. Mag.* **7** : 281, suppressed the Curtis name in favour of Zetterstedt's with the words " Zetterstedt's name must take priority, as Curtis's citation is extremely doubtful ". Forsslund, 1929, *Ent. Tidskr.* **58** : 191 stated that Zetterstedt's *Phryganea aureola* was in fact a *Holocentropus* and that the *Tinodes aureolus* auct. should assume the name *Tinodes pusillus* McLachlan.

4. In view of the uncertainty about the identity of *Tinodes pusillus* Curtis, 1834, I wrote to Mr. A. Neboiss, National Museum of Victoria, Melbourne, and he has sent me a drawing of the genitalia of the only pre-1834 male in the Curtis series of *T. pusillus*. This clearly represents the taxon known for nearly a century as *Tinodes assimilis* McLachlan, 1865. It is thus obvious that McLachlan mis-identified *Tinodes pusillus* Curtis and that this species and *T. pusillus* McLachlan are two distinct species. Strict application of the Law of Priority would result in the long-established name *Tinodes assimilis* McLachlan giving place to *Tinodes pusillus* Curtis. Since *Tinodes pusillus* McLachlan, a name which has recently been applied to *Tinodes aureolus*

auct. *nec* Zetterstedt, is a junior primary homonym of *Tinodes pusillus* Curtis, the taxon hitherto known under the names *Tinodes aureolus* auct. and *Tinodes pusillus* McLachlan will require a new name. Such action would cause much unnecessary confusion in nomenclature and I consider it better to validate the current, though recent, usage of the name *Tinodes pusillus* McLachlan, 1862 for *Tinodes aureolus* auct. *nec* Zetterstedt, by suppressing, for the purposes of both the Law of Priority and the Law of Homonymy, the species-group name *Tinodes pusillus* Curtis, 1834. Such action would also remove the threat to the well-established name *Tinodes assimilis* McLachlan, 1865.

5. The species-group name *pusillus* Curtis, 1834, as published in the binomen *Tinodes pusillus* Curtis, is not the type-species of the genus *Tinodes* Curtis.

6. The International Commission is therefore asked :

(1) to use its plenary powers to suppress, for the purposes of both the Law of Priority and the Law of Homonymy, the species-group name *pusillus* Curtis, 1834, as published in the binomen *Tinodes pusillus* Curtis ;

(2) to place the species-group name *pusillus* Curtis, 1834, as published in the binomen *Tinodes pusillus* (suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Specific Names in Zoology ;

(3) to place the species-group name *pusillus* McLachlan, 1862, as published in the binomen *Tinodes pusillus* (Curtis) McLachlan, on the Official List of Specific Names in Zoology.

PROPOSED REJECTION OF THE NEOTYPE AND TYPE-LOCALITY OF *THAMNOPHIS SIRTALIS* (LINNAEUS, 1758) (REPTILIA). Z.N.(S.) 1600

By Francis Cook (*National Museum of Canada, Ottawa, Ontario*)

The purpose of this submission is to show that the type-locality for *Thamnophis sirtalis* (Linnaeus), validated by Opinion 385 of the International Commission on Zoological Nomenclature (1956, *Ops. Decls. int. Comm. zool. Nomencl.* **12** : 191–230), was originally restricted in error. In accordance with recommendation 72E of the *International Code of Zoological Nomenclature*, 1961 the Commission is requested to set aside that part of the original ruling pertaining to the type-locality of *sirtalis* and replace it with an indisputable type-locality restriction.

2. *Thamnophis sirtalis* (Linnaeus) remained unchallenged as the legal name for the Eastern Garter Snake from 1758 until Klauber (1948, *Copeia* (1) : 1–14) pointed out that it had been incorrectly applied. In the original description of *Coluber sirtalis* Linnaeus (1758, *Syst. Nat.* ed. 10, p. 22) based on a specimen from " Canada " collected by Kalm, the subcaudal scale count was given as 114. Among the snakes of eastern North America which fit the simple Linnaean description only the Eastern Ribbon Snake has this many subcaudal scales. By strict rule of priority, therefore, *sirtalis* is the correct name for the Eastern Ribbon Snake, and the name it has long been known under, *sauritus* Linnaeus, 1766, is a synonym. The first name with a description that fits the Eastern Garter Snake is *ordinatus* (as first published in the combination *Coluber ordinatus* Linnaeus, 1766, *Syst. Nat.* ed. 12, p. 385). The strict legality of this arrangement has never been questioned since Klauber unveiled it.

Due to the confusion that would have followed such a major name shuffle (and indeed did follow to some extent after publication of Klauber's article) of two common and well-known species, Schmidt and Conant (1951, *Bull. zool. Nomencl.* **2** : 67–68) proposed that the plenary powers of the International Commission of Zoological Nomenclature be used to validate the use of *sirtalis* for the Eastern Garter Snake and that this name should " . . . apply to the species described and figured as *Tropidonotus sirtalis* by J. E. Holbrook in 1842 in *North American Herpetology : or a description of the reptiles inhabiting the United States*, Philadelphia, Dobson ; 5 vols., illus. (Vol. **4** : 41, pl. 11) and that " Canada " (restricted to the vicinity of Quebec, see Robert F. Inger, 1946, *Copeia* 1946 : 254) is to be treated as the type-locality of the species . . . ".

4. A counter proposal, that *sirtalis* be suppressed by placing it on the Official Index of Rejected and Invalid Specific Names in Zoology, *ordinatus* be recognized for the Eastern Garter Snake, and *sauritus* for the Eastern Ribbon Snake, both to be placed on the Official List of Specific Names in Zoology, was made by Dowling (1952, *Bull. zool. Nomencl.* **6** : 144–146).

5. In a vote by the Commission the Schmidt and Conant proposal was accepted and, therefore, the Dowling alternative rejected (Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature **12** (pt. 6) : Opinion 385, p. 214).

6. However, due to two decisions by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which granted official recognition to neotypes and made provision for designating type-localities, Schmidt and Conant submitted an amendment (*op. cit.* pp. 224–228) to their original proposal. This amendment designated as neotype of *sirtalis*, a specimen from the Royal Ontario Museum of Zoology and Palaeontology collection catalogued as **7167** (subsequently recatalogued as **73660** in the Chicago Natural History Museum and retained there) from " Quebec, Quebec County, Province of Quebec, Canada " (*op. cit.* p. 228). A vote on the amendment overwhelmingly accepted it (*op. cit.* p. 321).

7. This ruling made the following entry to the Official List of Specific Names in Zoology (*op. cit.* p. 193) :

> *sirtalis*. Linnaeus, 1758, as published in the combination *Coluber sirtalis*, the nominal species so named to be interpreted by reference to the neotype validated under the plenary powers . . . , the Restricted Locality for this nominal species to be :—" City of Quebec, Quebec County, Quebec Province, Canada " (Name No. 676).

8. In 1959, Bleakney (*Copeia* 1959(1) : 52–56) analyzed the variation of *Thamnophis sirtalis* in eastern and central Canada. In this paper he described the consistent colour variant of the northeast section of the species' range under the resurrected name *Thamnophis sirtalis pallidula* Allen, 1899. The range of this subspecies was defined as " . . . throughout the Atlantic provinces (exclusive of Newfoundland), westward into New Hampshire and thence northward to James Bay and eastward again along the north shore of the Gulf of St. Lawrence . . . In southern Quebec and northern New York State *pallidula* makes contact with a population of *sirtalis* . . . " (Bleakney, *op. cit.* pp. 54–55). The range map (p. 53) clearly shows *pallidula* in the area of Quebec City, with the zone of intergradation southwest of it.

9. Logier and Toner (1961, *Check List of the Reptiles and Amphibians of Canada and Alaska*) accepted Bleakney's recognition of *T. s. pallidula* and plotted the intergradation zone as he had presented it. Listed and mapped under *T. s. pallidula* was an R.O.M. specimen from Quebec City. This is the same locality as the R.O.M. specimen designated by Schmidt and Conant as the neotype of *Thamnophis sirtalis*.

10. If the neotype and type-locality restriction by Schmidt and Conant are accepted, then the name for the Maritime Garter Snake (referred to as *Thamnophis sirtalis pallidula* by Bleakney, and Logier and Toner) becomes *Thamnophis sirtalis sirtalis* (Linnaeus) and the rest of the eastern populations should be designated *Thamnophis sirtalis ordinatus* (Linnaeus).

11. However, this change is unnecessary as the original type-locality restriction is without basis. When Inger (1946, *Copeia* 1946 : 254) restricted the type-locality he based his decision on the assumption that the Linnean description was based on a specimen of the Eastern Garter Snake. As Linnaeus (1758, *Syst. Nat.* ed. 10, p. 22) cited only " Canada " as the " habitat " (=type-locality) and gave Kalm as the collector, a careful study was made by Inger of *Peter Kalm's Travels in North America* (revised and edited by Adolph B. Benson, New York, 1937). The only mention of snakes referred to the vicinity

of Quebec City. Therefore, Inger legitimately reasoned that it was most likely that the specimen sent to Linnaeus had been collected at this locality. However, now that it is generally agreed that the Kalm specimen *was not* a Garter Snake but a Ribbon Snake (although the name has been assigned to the Garter Snake, the identity of the actual specimen on which it was based cannot be changed by a ruling of the Commission) then it *could not* have been collected at Quebec City. Aside from the relic population in climatically favourable south-western Nova Scotia, the easternmost record of the Ribbon Snake in Canada is in the Horseback Mountains, two miles west of Pakenham, Ontario, about 26 miles southwest of Ottawa. There are no records from anywhere in the province of Quebec, and the nearest Southern reports are from southern New Hampshire, Vermont and New York States. The locality where Kalm's specimen came from is unknown.

12. Therefore, this type-locality, chosen for the Eastern Garter Snake on the basis of the hypothetical origin of a specimen which actually was an Eastern Ribbon Snake and could *not* have been collected at that locality, has no validity for the Eastern Garter Snake.

13. Recommendation 72E. Type-localities, in the new *International Code of Zoological Nomenclature*, 1961 (adopted by the XV International Congress of Zoology, p. 77) states that " If a type-locality was erroneously designated or restricted it shall be corrected ,'.

14. Since the Linnaean specimen is not the basis for the taxon *sirtalis*, then the locality where it was collected, wherever in Canada it was, should not be the basis for the type-locality of *sirtalis*. The reasonable solution is to return to the original Schmidt and Conant proposal and base *sirtalis* on the description by Holbrook (*op. cit.*). Following the reasoning outlined in selecting a type-locality for *sauritus* (Opinions and Declarations rendered by the International Commission of Zoological Nomenclature, Opinion 385, Appendix, p. 226) where the type-locality was designated for that species as " neighbourhood of Charleston, South Carolina " because Holbrook resided there while writing *North American Herpetology*, the same locality could be designated as the type-locality for *sirtalis*.

15. Besides being the logical method of stabilizing the name *sirtalis* from a description of *sirtalis* in the region where the Garter Snake was first recognized under the name *sirtalis*, the connection has as a fortunate by-product that the Maritime Garter Snake remains as *Thamnophis sirtalis pallidula* and the Eastern Garter Snake as *Thamnophis sirtalis sirtalis* and avoiding further confusion in *Thamnophis* literature.

16. It is proposed that the International Commission, which originally approved the restricted type-locality of *sirtalis* as " Quebec, Quebec County, Province of Quebec, Canada " and the neotype specimen as No. 73660 in the Chicago Natural History Museum from the above locality, set aside that portion of the amendment to Opinion 385 in which this type-locality and neotype appeared, thus rejecting any official status for both. The Commission is further asked to rule that the name *sirtalis* should " . . . apply to the species described and figured as *Tropidonotus sirtalis* by J. E. Holbrook in 1842 in *North American Herpetology ; or a description of the reptiles inhabiting the United*

States, Philadelphia, Dobson ; 5 vols., illus. (Vol. 4 : 41, pl. 11) ", as originally proposed by Schmidt and Conant, and that the type-locality be designated as " neighbourhood of Charleston, South Carolina " as it was done for *Thamnophis sauritus*, which by Commission ruling, is also based on the description by Holbrook.

17. The writer does not recommend the selection of a new neotype from this type-locality. It is believed that the selection of a neotype at this time is unnecessary as the basis for the species and the type-locality have been defined, and the selection would best be made by some future researcher who attempts a monographic treatment of the *Thamnophis sirtalis* complex in eastern North America.

The writer is indebted to Dr. Douglas A. Rossman who originally drew this situation in *Thamnophis sirtalis* nomenclature to his attention.

25 OCT 1963
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BRITISH MUSEUM NATURAL HISTORY

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The Official Organ of

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Vol. 20, Part 6 (pp. 401–475, T.P.–XIV) 6th December, 1963

Secretary's Note

The Minutes of the meetings of the Commission held in Washington last August will be published in a subsequent part of the Bulletin together with the new Constitution. In the meantime, the six new Commissioners elected at Washington have been added to the list of Members of the Commission on the inside cover of this part. Since President J. Chester Bradley retired from the Commission at Washington he is no longer available as President, which office remains vacant until the result of the ensuing election is known.

W. E. CHINA
Acting Secretary to the
International Commission on Zoological Nomenclature

NOTICES

(a) *Date of Commencement of Voting.*—In normal circumstances the Commission starts to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication of each application. Any zoologist who wishes to comment on any of the applications in the present part is invited to send his contribution, in duplicate, to the Secretariat of the Commission as quickly as possible, and in any case in time to reach the Secretariat before the close of the six-month period.

(b) *Possible use of the Plenary Powers.*—The possible use by the Commission of its plenary powers is involved in the following applications published in the present part of the Bulletin:—

(1) Validation and emendation of, and designation of a type-species for *Stenorynchus* Lamarck, 1818; validation of INACHINAE McLeay, 1838 (Crustacea, Decapoda). Z.N.(S.)751

(2) Designation of a type-species for *Chapmanina* Silvestri, 1931 (Foraminifera) Z.N.(S.)1402

(3) Validation of *Leptocorisa* Latreille, 1829 (Insecta, Hemiptera). Z.N.(S.) 1589

(4) Designation of a type-species for *Anolis* Daudin, 1803 (Reptilia). Z.N.(S.)1603

(5) Suppression of *Naiadites elongatus* Dawson, 1860, as a nomen dubium. (Lamellibranchia). Z.N.(S.)1604

(6) Designation of a type-species for *Serpula* Linnaeus, 1758, with validation of *Serpula vermicularis* Linnaeus, 1761 (Polychaeta). Z.N.(S.)1606

(7) Validation of a neotype for *Coenonympha ochracea* Edwards, 1861 (Insecta, Lepidoptera). Z.N.(S.)1607

COMMENT ON *ENDOTHYRA BOWMANI* BROWN, 1843. vs. *ENDOTHYRA BOWMANI* PHILLIPS, 1846. *Z.N.*(S.) 768

(see volume 19, pages 200–204; volume 20, pages 285–291)

By Joseph St. Jean, Jr. (*University of North Carolina, Chapel Hill, North Carolina, U.S.A.*)

1. According to Article 25 of the Rules of Zoological Nomenclature, *Endothyra bowmani* Brown, 1843, has priority over *E. bowmani* Phillips, 1846. Therefore, *Endothyra* Phillips (monotypic) is a junior primary generic homonym of *Endothyra* Brown (also monotypic). Further, *E. bowmani* Phillips is a junior primary specific homonym of *E. Bowmani* Brown.

2. Article 21 states that the author of a scientific name is the person who first publishes the name unless it is clear from the contents of the publication that some other person is responsible for said name and its indication, definition, or description. Brown titled his report, "The elements of fossil conchology; according to the arrangement of Lamarck with the newly established genera of other authors" and prefaced his description of Endothyra thus: "Genus XI. –ENDOTHYRA– Phillips". Brown did not attribute the trivial name, "*bowmani*" to Phillips, but it seems more than coincidence that he should inadvertently choose the same trivial name as Phillips did or *vice versa*. Phillips makes no mention of Brown's paper in his description. According to Article 21, Phillips, not Brown is the author of *Endothyra*. By applying both Articles 21 and 25, we have the unfortunate situation that the author of the genus conceived of the genus and the monotypic species involved as being entirely different from the valid type. All subsequent authors who have dealt with the problem, including Zeller and Zeller, and Henbest, have agreed that Brown's species is distinctly not conspecific with Phillips' species nor is Brown's *Endothyra* considered congeneric with Phillips' *Endothyra*. If we follow strictly the Rules of Zoological Nomenclature, *Endothyra* is not what Phillips, the author, intended it to be.

3. Contrary to the rebuttal to Henbest's proposal by Zeller and Zeller (item 3) a meagre description published in 1846 does not constitute a *nomen nudum*. Indeed, both Brown's and Phillips' descriptions are meagre. As a minor point, *Endothyra bowmani* Phillips is a junior homonym, not a junior synonym of *E. bowmani* Brown, in spite of the difference in spelling, an obvious *lapsus calami*, as Zeller and Zeller suggest in the same item.

4. H. B. Brady (1876, *Palaeont. Soc. Pub.* **30** : 91, pl. 5, figs. 1–4) described in detail and published figures of complete topotype specimens of Phillips' species, and recognized Phillips as the author of *Endothyra*. Phillips' genus has become well established in the literature since Brady's publication 87 years ago. Today we know many of the internal and external characteristics of the genus, including the manner of chamber addition, coiling, and minute details of wall structure.

5. Doris E. N. Zeller (1963, *Jour. Paleontology* **37** : 502, text-fig. 1) published a topotype of Brown's species, designating it as the neotype. I agree that Dr. Zeller's specimen is conspecific with Brown's and she should be congratulated for successfully obtaining and publishing a topotype specimen. To this day, however, there has not been more than a cross-section described of Brown's species. Therefore Brown's genus and species is incompletely known and *Endothyra* Brown can only be considered a form genus at this time.

6. Contrary to item 6 by Zeller and Zeller, *Endothyra* does range into the lower Pennsylvanian and beyond, for Brown's genus is a senior synonym of *Millerella* Thompson, 1942, a well established primitive discoid fusulinid genus occurring in the Mississippian and Pennsylvanian (Lower and Upper Carboniferous). Compare Zeller's figure of the topotype referred to above with sagittal sections of paratypes of the type-species of *Millerella* (Thompson, M. L., 1942, *American Jour. Sci.* **240** : 405, pl. 1, figs. 10–14) or *Millerella inflecta* Thompson, for example (1948,

Univ. of Kansas Paleont. Contrib., Art. 1, pl. 24, fig. 14). The continued recognition of Brown's species as the type-species of *Endothyra* will have the undesirable effect of suppressing another well established genus, *Millerella*.

7. Zeller and Zeller (item 7) offer the usefulness and acceptance of *Plectogyra* Zeller as argument for not suppressing *Endothyra* Brown. *Plectogyra* is a synonym of Phillips' genus *Endothyra* as interpreted by Brady. *Plectogyra* has only been in existence 13 years, and though quickly picked up by text-book writers and some authors, it has not been universally accepted. (See St. Jean, 1957, *Indiana Dept. of Conserv. Geol. Surv. Bull.* 10 : 23–27.) If Phillips' *Endothyra* is not validated, then *Plectogyra* Zeller (1950, *Kansas Univ. Paleont. Contr.*, Protoza, art. 4 : 3, 4, pls. 3–5) becomes a junior synonym of *Paraendothyra* Chernysheva (1940, *Soc. Nat. Moscow*, Bull. Moscow (new ser.) **48**, sec. Geol. **18** (5, 6) : 129, pl. 1, figs. 1, 2, pl. 2, fig. 4). Regardless of the action of the Commission *Plectogyra* is invalid.

In view of the foregoing, and especially in view of the chaotic and difficult problems developing from the continued application of the law of priority to the genus *Endothyra*, I strongly support Dr. Henbest's proposal to suppress *Endothyra bowmani* Brown, 1843 in favour of *Endothyra bowmani* Phillips, 1846.

COMMENT ON PROPOSED NEOTYPES AFFECTING THE NAME OF THE TYPE-SPECIES OF *XENOPHORA* FISCHER VON WALDHEIM, 1807.

Z.N.(S.) 1483

By Robert Robertson (*Academy of Natural Sciences of Philadelphia, U.S.A.*)

I believe that Dr. K. V. W. Palmer's proposed designation (*Bull. zool. Nomencl.* **20** : 10–11, pl. 2) of a neotype for *Turbo trochiformis* Born, 1778, violates three provisions of Article 75 of the Code.

1. The designation is not in the interests of nomenclatural stability. The name in very wide use for the type-species of *Xenophora* is *X. conchyliophora* (Born, 1780). See Article 75a and 75b.

2. No differentiating characters are given between the type-species of *Xenophora* and other species in the genus; nor is there a bibliographic reference to such a statement. See Article 75c(1).

3. The proposed neotype is inconsistent with both the description and the illustrations of *Turbo trochiformis* Born, 1778. Two phrases in the description accord with *Calyptraea* but not with *Xenophora*, and at the end of the description there is mention merely of *traces* of adherent foreign shells (for details, see *Bull. zool. Nomencl.* **20** : 12, paragraphs 6 and 5). The Knorr illustrations of a specifically identifiable *Calyptraea* were the *only* figures referred to with the description (compare *Bull. zool. Nomencl.* **20**, pls. 1 and 2). See Article 75c(4).

Although Dr. Palmer's proposed designation of a neotype of *Trochus conchyliophorus* Born, 1780, is in the interests of nomenclatural stability, a summary of differentiating characters is lacking for this designation also.

According to one portion of Article 75a, a neotype is to be designated only when this is essential for solving " a complex zoological problem ". There is just one zoological problem to be resolved in order to determine the correct name of the type-species of *Xenophora*: Is *Turbo trochiformis* Born, 1778, objectively identifiable as this species of *Xenophora* from the original publication? In my opinion it clearly is not, for reasons already given in detail (*Bull. zool. Nomencl.* **20** : 11–14). Should designation of a neotype be made " To *establish* [italics mine] the binomen *Turbo trochiformis* . . . " for the type-species of *Xenophora*? (quoted from *Bull. zool. Nomencl.* **20** : 11, section 3).

COMMENT ON THE PROPOSED SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME *TETRASTICHUS* WALKER, 1842.

Z.N.(S.) 1503

(see volume 19, pages 306–307)

By Z. Bouček (*Department of Entomology, National Museum, Prague, Czechoslovakia*)

I wish to support the proposal of Dr. Burks for placing the name *Tetrastichus* Haliday, 1844, on the Official List of Generic Names in Zoology.

The whole matter has been known to me for several years and I have already expressed the wish to retain *Tetrastichus* as a widely accepted and, especially in economic entomology, well-known name (*Trans. Inst. internat. Conf. Ins. Pathol. a. biol. Contr. Praha* 1958: 352, 1960; and *Acta ent. Mus. Pragae* **34** : 475, 1961).

I am voting for the placing of *Tetrastichus* on the Official List in the hope that this action will relatively simply make an end to a troublesome situation in a large group numbering, in Europe alone, probably more than 100 species. I am also afraid that this situation is much more complicated than it was put by Dr. Burks. There exist several generic names belonging to the group, viz. *Aprostocetus* Westwood, 1833, *Sphenolepis* Nees, 1834, *Tetrastichus* Walker, 1842, *Tetrastichus* Haliday, 1844, apart from numerous other, more recent names. The type-species of the above mentioned earliest genera all belong to different species-groups (see Graham, *Ent. mon. Mag.* **97** : 34–64 and *Opusc. ent.* **26** : 4–37, 1961) so that their mutual synonymy is always a rather subjective matter. They may be considered as belonging taxonomically to more than one genus, or to only one large genus, as in my opinion and that of the world's leading expert on the group in Europe, Dr. M. W. R. de V. Graham of Oxford, England (cf. his reasons in e.g. *Ent. mon. Mag.* **97** : 36, 1961).

This question seems to be too premature to be solved now, because a deeper taxonomic work on the group is only at its very beginning in Europe. In North America, it is true, the species of *Tetrastichus* Haliday were revised excellently by Burks, 1943 (*Proc. U.S. Nat. Mus.* **93** : 505–608), but also there the closely allied species of *Aprostocetus* still await their reviser. The type-species of *Tetrastichus* Walker, 1842, *lycidas* Walker, belongs to a group considered by Burks 1943 as not being different generically from (*Cirrospilus attalus* Walker =) *Eulophus miser* Nees, the type-species of *Tetrastichus* Haliday. On the other hand Dr. Burks in his recent proposal seems to have accepted the view of Lindroth and Graham 1960 that *lycidas* may not be generically different from the type-species of *Aprostocetus* Westwood, *A. caudatus* Westwood. Therefore, apart from my subjective taxonomic reasons, I see no grounds for taking *Aprostocetus* Westwood, *Tetrastichus* Walker and *Tetrastichus* Haliday as different genera, but well understand the efforts to split an unwieldy large genus into smaller, better reviewable, units. It is unfortunate that we have not yet found reliable taxonomic characters for it.

Automatic application of the Code would give the validity to *Aprostocetus* Westwood as the earliest synonym and this is why Dr. Graham keeps on using this name for the whole complex in his recent papers. I am fully in agreement with his conception of the genus, but in view of the attempt being made to retain the generally accepted name *Tetrastichus*, I feel compelled to support this, if a placing on the Official List (no matter whether of *Tetrastichus* Walker, 1842, or of *Tetrastichus* Haliday, 1844) can preserve the name. I do hope with Dr. Burks that this is the safest and simplest way to retain the name, which can be used then for a major group of species by those authors who do not consider the complex in question to be one genus, and for the whole complex by those who consider it one genus. Thus most species of economic importance will fall under *Tetrastichus* in any case.

Therefore I support Dr. Burks' requests numbered (1), (3) and (4)–(6), but would point out that the species name *attalus* Walker, 1839, is a junior subjective synonym of *miser* Nees, 1834, and that the latter is better known than the former.

OPINION 679

HETEROGASTRINAE STÅL, 1872 (INSECTA, HEMIPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following family-group names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) PHYGADICIDA Stål, 1862;

(b) PHYGADICIDAE Douglas & Scott, 1865;

(c) PHYGADICIDA Walker, 1872.

(2) The generic name *Heterogaster* Schilling, 1829 (gender : masculine), type-species by designation by Curtis, 1836, *Cimex urticae* Fabricius, 1775, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1561.

(3) The specific name *urticae* Fabricius, 1775, as published in the binomen *Cimex urticae* (type-species of *Heterogaster* Schilling, 1829) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1937.

(4) The family-group name HETEROGASTRINAE (correction of HETEROGASTRINI) Stål, 1872 (type-genus *Heterogaster* Schilling, 1829) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 352.

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Phygas* Fieber, 1837 (a junior homonym of *Phygas* Treitschke, 1833, and a junior objective synonym of *Heterogaster* Schilling, 1829) (Name No. 1658);

(b) *Phygadicus* Fieber, 1851 (a junior objective synonym of *Heterogaster* Schilling, 1829) (Name No. 1659).

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) PHYGADICIDA Stål, 1862 (type-genus *Phygadicus* Fieber, 1851) (as suppressed under the plenary powers in (1) above) (Name No. 378);

(b) PHYGADICIDAE Douglas & Scott, 1865 (type-genus *Phygadicus* Fieber, 1851) (as suppressed under the plenary powers in (1) above) (Name No. 379);

(c) PHYGADICIDA Walker, 1872 (type-genus *Phygadicus* Fieber, 1851) (as suppressed under the plenary powers in (1) above) (Name No. 380);

(d) HETEROGASTRINI Stål, 1872 (type-genus *Heterogaster* Schilling, 1829) an incorrect original spelling for HETEROGASTRINAE, but available for use for a taxon belonging to any category within the family-group for which the termination "–INI" is considered appropriate) (Name No. 381);

(e) PHYGADICIDAE Douglas & Scott, 1876 (type-genus *Phygadicus* Fieber) 1851) (a junior objective synonym of HETEROGASTRINAE Stål, 1872, Name No. 382).

HISTORY OF THE CASE (Z.N.(S.) 1474)

The present case was submitted to the office of the Commission by Dr. W. E. China and Dr. James A. Slater in March 1961. The application was sent to the printer on 6 April 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 349–350. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Prof. T. Jaczewski and Dr. E. Wagner.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)42 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 349–350. At the close of the prescribed voting period on 6 February 1963 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Holthuis, Hering, Vokes, Brinck, Stoll, Mayr, Riley, Bradley, Jaczewski, Lemche, do Amaral, Uchida, Key, Obruchev, Boschma, Munroe, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative Votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—one (1): Hemming.

Commissioner Borchsenius returned a late affirmative vote.

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

Heterogaster Schilling, 1829, *Uebers. Arb. Veränder. schles. Ges. vaterl. Cultur, Beitr. Entom.* **1** : 37, 84

HETEROGASTRINAE Stål, 1872, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **1872** : 40, 62

HETEROGASTRINI Stål, 1872, an incorrect original spelling for HETEROGASTRINAE q.v.

PHYGADICIDA Stål, 1862, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **1862** : 211

PHYGADICIDA Walker, 1872, *Cat. Hemipt. Brit. Mus.* **5** : 26

PHYGADICIDAE Douglas & Scott, 1865, *Brit. Hemipt.* **1** (Heteropt.) : 21, 221; *List Brit. Hemipt.*: 8

PHYGADICIDAE Douglas & Scott, 1876, *Cat. Brit. Hemipt.*: 19

Phygadicus Fieber, 1851, *Abh. Königl.-böhm. Ges. Wiss.* (5) **7** : 461

Phygas Fieber, 1837, *Beitr. Ges. Natur. Heilwiss.* **1** : 348

urticae, Cimex, Fabricius, 1775, *Syst. Ent.*: 231

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Heterogaster* Schilling, 1829 : Curtis, 1836, *Brit. Ent.* **13** : pl. 597

CERTIFICATE

I certify that the votes cast on Voting Paper (62)42 were cast as set out above, that the proposal set out in the Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 679.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
6 *March* 1963

OPINION 680

SCOLOPOSTETHUS FIEBER, [1860] (INSECTA, HEMIPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) the generic name *Tritomacera* Costa, 1841;

(b) the generic name *Tritomocera* Agassiz, 1846;

(c) the specific name *aphanoides* Costa, 1841, as published in the binomen *Tritomacera aphanoides*.

(2) The generic name *Scolopostethus* Fieber, [1860] (gender : masculine), type-species, by designation by Distant, 1904, *Scolopostethus cognatus* Fieber, [1860], is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1562.

(3) The specific name *cognatus* Fieber, [1860], as published in the binomen *Scolopostethus cognatus* (type-species of *Scolopostethus* Fieber, [1860]) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1938.

(4) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Tritomacera* Costa, 1841 (as suppressed under the plenary powers in (1) above) (Name No. 1660);

(b) *Tritomocera* Agassiz, 1846 (as suppressed under the plenary powers in (1) above) (Name No. 1661).

(5) The specific name *aphanoides* Costa, 1841, as published in the binomen *Tritomacera aphanoides* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 763.

HISTORY OF THE CASE (Z.N.(S.) 1475)

The present case was submitted to the office of the Commission by Dr. James A. Slater and Dr. W. E. China in March 1961. The application was sent to the printer on 6 April 1961 and was published on 10 November 1961 in *Bull. zool. Nomencl.* **18** : 351–352. Public Notice of the possible use of the plenary powers was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Professor T. Jaczewski and Dr. E. Wagner.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)43 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 351–352. At the close of the prescribed voting period on 6 February 1963 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Holthuis, Hering, Vokes, Brinck, Stoll, Mayr, Riley, Bradley, Jaczewski, Lemche, do Amaral, Uchida, Key, Obruchev, Boschma, Munroe, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—one (1): Hemming.

Commissioner Borchsenius returned a late affirmative vote.

In returning his Voting Paper Commissioner Holthuis pointed out, as follows, a mistake in the proposals to be voted on: " There is no need for the suppression under the plenary powers of *Tritomocera* Agassiz, 1848, as this name is an invalid junior homonym of *Tritomocera* Agassiz, 1846, the latter name being suppressed for the Law of Priority only."

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

aphanoides, *Tritomacera*, Costa, 1841, *Ann. Soc. ent. France* (1) **10** : 296–297
cognatus, *Scolopostethus*, Fieber, [1860], *Europ. Hemipt.*: 49, 188
Scolopostethus Fieber, [1860], *Europ. Hemipt.*: 49, 188
Tritomacera Costa, 1841, *Ann. Soc. ent. France* (1) **10** : 296–297
Tritomocera Agassiz, 1846, *Nomencl. zool. Index Univ.*: 376

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Scolopostethus* Fieber, [1860] : Distant, 1904, *Fauna Brit. India*, Rhynch. **2** : 92

CERTIFICATE

I certify that the votes cast on Voting Paper (62)43 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 680.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
7 *March* 1963

OPINION 681

NAUCORIS GEOFFROY, 1762 (INSECTA, HEMIPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Naucoris* Geoffroy, 1762, is hereby validated with the type-species *Naucoris maculatus* Fabricius, 1798.

(2) The following generic names are hereby placed on the Official List of Generic Names in Zoology with the Name Numbers specified:

(a) *Naucoris* Geoffroy, 1762 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Naucoris maculatus* Fabricius, 1798 (Name No. 1563);

(b) *Ilyocoris* Stål, 1861, (gender : masculine), type-species, by original designation, *Nepa cimicoides* Linnaeus, 1758 (Name No. 1564).

(3) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *maculatus* (correction of *maculata*) Fabricius, 1798, as published in the binomen *Naucoris maculata* (type-species of *Naucoris* Geoffroy, 1762) (Name No. 1939);

(b) *cimicoides* Linnaeus, 1758, as published in the binomen *Nepa cimicoides* (type-species of *Ilyocoris* Stål, 1861) (Name No. 1940).

(4) The family-group name NAUCORIDAE (correction of NAUCORIDA) [Leach, 1815] (type-genus *Naucoris* Geoffroy, 1762) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 353.

(5) The generic name *Naucoris* Fabricius, 1775 (a junior homonym of *Naucoris* Geoffroy, 1762) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1662.

(6) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) NAUCORIDES Fallén, 1814 (derived from the invalid and rejected generic name *Naucoris* Fabricius, 1775, *nec* Geoffroy, 1762) (Name No. 383);

(b) NAUCORIDA [Leach, 1815] (type-genus *Naucoris* Geoffroy, 1762) (an incorrect original spelling for NAUCORIDAE) (Name No. 384);

(c) NAUCORIDEA Fieber, 1851 (type-genus *Naucoris* Geoffroy, 1762) (an incorrect spelling for NAUCORIDAE [Leach, 1815]) (Name No. 385);

(d) NAUCORISEAE Fieber, 1851 (type-genus *Naucoris* Geoffroy, 1762) (an incorrect spelling for NAUCORIDAE [Leach, 1815]) (Name No. 386);

(e) NAUCORINI Costa, 1852 (type-genus *Naucoris* Geoffroy, 1762) (an incorrect spelling for NAUCORIDAE [Leach, 1815], but available for use for a taxon belonging to any category within the family-group for which the termination " –INI " is considered appropriate) (Name No. 387);

(f) NAUCORIDI Acloque, 1897 (type-genus *Naucoris* Geoffroy, 1762) (an incorrect spelling for NAUCORIDAE [Leach, 1815]) (Name No. 388).

Bull. zool. Nomencl., Vol. 20, Part 6. December 1963.

HISTORY OF THE CASE (Z.N.(S.) 608)

The present case was first brought to the attention of the Commission during the Thirteenth International Congress of Zoology, Paris, 1948, a decision being postponed until further information should become available. In 1955 Professor T. Jaczewski submitted to the Commission's office an application for the validation of *Naucoris* Geoffroy. Professor Jaczewski's paper was sent to the printer on 20 June 1961 and was published on 17 November 1961 in *Bull. zool. Nomencl.* **18** : 374–376. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. E. Wagner.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)44 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 375–376. At the close of the prescribed voting period on 6 February 1963 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Holthuis, Hering, Vokes, Brinck, Stoll, Mayr, Riley, Bradley, Jaczewski, Lemche, do Amaral, Uchida, Key, Obruchev, Boschma, Munroe, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—one (1): Hemming.

Commissioner Borchsenius returned a late affirmative vote.

Original References

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

cimicoides, *Nepa*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 440
Ilyocoris Stål, 1861, *Öfvers. K. svensk. Vetensk.-Akad. Förhandl.* **18** : 201
maculatus, *Naucoris*, Fabricius, 1798, *Suppl. Ent. syst.*: 325
NAUCORIDA [Leach, 1815], an incorrect original spelling for NAUCORIDAE q.v.
NAUCORIDAE [Leach, 1815], *in* Brewster's *Edinb. Ency.* **9** : 123
NAUCORIDEA Fieber, 1851, *Genera Hydrocoridum*: 9, 15
NAUCORIDES Fallén, 1814, *Spec. nov. Hemipt.*: 3, 15
NAUCORIDI Acloque, 1897, *Faune de France* **2** : 259, 398
NAUCORINI Costa, 1852, *Cimicum Regni Neap. Centuria tertia et quartae*: 65
Naucoris Fabricius, 1775, *Syst. Ent.*: 693.
Naucoris Geoffroy, 1762, *Hist. abrég. Ins. Paris* **1** : 473–475
NAUCORISEAE Fieber, 1851, *Genera Hydrocoridum*: 9

CERTIFICATE

I certify that the votes cast on Voting Paper (62)44 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 681.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
7 *March* 1963

OPINION 682

CERATOSOLEN MAYR, 1885 (INSECTA, HYMENOPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Sycocrypta* Coquerel, 1855, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The generic name *Ceratosolen* Mayr, 1885 (gender : masculine), type-species, by designation by Ashmead, 1904, *Blastophaga appendiculata* Mayr, 1885, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1565.

(3) The specific name *appendiculata* Mayr, 1885, as published in the binomen *Blastophaga appendiculata* (type-species of *Ceratosolen* Mayr, 1885) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1941.

(4) The generic name *Sycocrypta* Coquerel, 1855 (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name No. 1663.

HISTORY OF THE CASE (Z.N.(S.) 1479)

The present case was submitted to the office of the Commission by Dr. J. T. Wiebes in May 1961. The application was sent to the printer on 20 June 1961 and was published on 17 November 1961 in *Bull. zool. Nomencl.* **18** : 383–384. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. E. F. Riek.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)47 either for or against the proposals set out in *Bull. zool. Nomencl.* **18** : 383–384. At the close of the prescribed Voting Period on 6 February 1963 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Holthuis, Hering, Vokes, Brinck, Stoll, Mayr, Riley, Bradley, Lemche, do Amaral, Jaczewski, Uchida, Key, Obruchev, Boschma, Munroe, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—one (1): Hemming.

Commissioner Borchsenius returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

appendiculata, *Blastophaga*, Mayr, 1885, *Verh. zool.-bot. Ges Wien* **35**(1) : 161, 164

Ceratosolen Mayr, 1885, *Verh. zool.-bot. Ges. Wien* **35**(1) : 150, 159, 160, 164

Sycocrypta Coquerel, 1855, *Rev. Mag. Zool.* (2)**7** : 367, 422–425, pl. 10, fig. 3

The following is the original reference for the designation of a type-species for a genus concerned in the present Ruling:

For *Ceratosolen* Mayr, 1885 : Ashmead, 1904, *Mem. Carnegie Mus.* **1**(4) : 233

CERTIFICATE

I certify that the votes cast on Voting Paper 62(47) were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 682.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
14 *March* 1963

OPINION 683

SCOLYTUS GEOFFROY, 1762 (INSECTA, COLEOPTERA): VALIDATED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the generic name *Scolytus* Geoffroy, 1762, is hereby validated with the type-species *Bostrichus scolytus* Fabricius, 1775.

(2) The generic name *Scolytus* Geoffroy, 1762 (gender : masculine), type-species, by designation under the plenary powers in (1) above, *Bostrichus scolytus* Fabricius, 1775, is hereby placed on the Official List of Generic Names in Zoology with the Name No. 1566.

(3) The specific name *scolytus* Fabricius, 1775, as published in the binomen *Bostrichus scolytus* (type-species of *Scolytus* Geoffroy, 1762) is hereby placed on the Official List of Specific Names in Zoology with the Name No. 1942.

(4) The family-group name SCOLYTIDAE Westwood, 1838 (type-genus *Scolytus* Geoffroy, 1762) is hereby placed on the Official List of Family-Group Names in Zoology with the Name No. 354.

(5) The following generic names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology with the Name Numbers specified:

(a) *Ekkoptogaster* Herbst, 1793 (a junior objective synonym of *Scolytus* Geoffroy, 1762) (Name No. 1664);

(b) *Eccoptogaster* Erichson, 1836 (a junior objective synonym of *Scolytus* Geoffroy, 1762 and an unjustified emendation of *Ekkoptogaster* Herbst, 1793) (Name No. 1665).

(6) The following specific names, junior objective synonyms of *Bostrichus scolytus* Fabricius, 1775, are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *punctatus* Müller, 1776, as published in the binomen *Scolytus punctatus* (Name No. 764);

(b) *scolythus* [sic] Sulzer, 1776, as published in the binomen *Dermestes scolythus* (Name No. 765);

(c) *geoffroi* [sic] Goeze, 1777, as published in the combination *Dermestes scolytus geoffroi* (Name No. 766);

(d) *niger* Geoffroy, 1785, as published in the binomen *Scolytus niger* (Name No. 767);

(e) *destructor* Olivier, 1795, as published in the binomen *Scolytus destructor* (Name No. 768).

(7) The following family-group names are hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology with the Name Numbers specified:

(a) ECCOPTOGASTERINI Reitter, 1906 (type-genus *Eccoptogaster* Erichson, 1836) (a junior objective synonym of SCOLYTIDAE Westwood, 1838) (Name No. 389);

(b) ECCOPTOGASTERINAE Trédl, 1907 (type-genus *Eccoptogaster* Erichson, 1836) (a junior objective synonym of SCOLYTIDAE Westwood, 1838) (Name No. 390).

HISTORY OF THE CASE (Z.N.(S.) 81)

A full history of the present case is given in the report prepared by Dr. W. E. China, Assistant Secretary to the Commission. Dr. China's report was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 3–8. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to seven entomological serials. The proposals were supported by Dr. Stephen L. Wood.

DECISION OF THE COMMISSION

On 6 November 1962 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (62)48 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 8. At the close of the prescribed voting period on 6 February 1963 the state of the voting was as follows:

Affirmative votes—twenty-five (25), received in the following order: China, Holthuis, Hering, Vokes, Stoll, Mayr, Riley, Brinck, Bradley, Lemche, do Amaral, Uchida, Jaczewski, Key, Obruchev, Boschma, Munroe, Alvarado, Tortonese, Kühnelt, Bonnet, Binder, Mertens, Miller, Evans.

Negative votes—none (0).

On Leave of Absence—two (2): Poll, Prantl.

Voting Papers not returned—one (1): Hemming.

Commissioner Borchsenius returned a late affirmative vote.

ORIGINAL REFERENCES

The following are the original references for names placed on Official Lists and Indexes by the Ruling given in the present Opinion:

destructor, *Scolytus*, Olivier, 1795, *Entomologie* **4**(78) : 1–14, pls. 1–2
Eccoptogaster Erichson, 1836, *Arch. Naturgesch.* **2** : 58
ECCOPTOGASTERINAE Trédl, 1907, *Ent. Bl.* **3** : 5
ECCOPTOGASTERINI Reitter, 1906, *Cat. Col. Europe*: 707
Ekkoptogaster Herbst, 1793, *Der Käfer*, Th. V: 81, 103, 122, 127–128
geoffroi, *Dermestes scolytus*, Goeze, 1777, *Ent. Beytr.* **1** : 143
niger, *Scolytus*, Geoffroy, 1785, *in* Fourcroy, *Ent. paris.*: 139
punctatus, *Scolytus*, Müller, 1776, *Zool. dan. Prodr.*: 57
scolythus, *Dermestes*, Sulzer, 1776, *Gesch. Ins.* **1** : 21; **2** : tab. 2, fig. 13k
SCOLYTIDAE Westwood, 1838, *Introd. mod. Classif. Ins.* **1** : 350
Scolytus Geoffroy, 1762, *Hist. abrég. Ins. Paris* **1** : 309
scolytus, *Bostrichus*, Fabricius, 1775, *Syst. Ent.*: 59

CERTIFICATE

I certify that the votes cast on Voting Paper 62(48) were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 683.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
14 *March* 1963

OPINION 684

ELEVEN DUBIOUS SPECIFIC NAMES OF BIRDS: SUPPRESSED UNDER THE PLENARY POWERS

RULING.—(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy:

(a) *cothurnix* Scopoli, 1786, as published in the binomen *Oriolus cothurnix*;
(b) *Novae Guineae* Gmelin, [1789], as published in the binomen *Tetrao Novae Guineae*;
(c) *Novae Guineae* Latham, 1790, as published in the binomen *Perdix Novae Guineae*;
(d) *brazieri* Sclater, 1869, as published in the binomen *Megapodius brazieri*;
(e) *rufulus* Vieillot, 1817, as published in the binomen *Cuculus rufulus*;
(f) *tyrannulus* De Vis, 1905, as published in the binomen *Sericornis tyrannulus;*
(g) *montana* De Vis, 1897, as published in the binomen *Crateroscelis montana*;
(h) *tessacourbe* Scopoli, 1786, as published in the binomen *Muscicapa tessacourbe*;
(i) *luzoniensis* Gmelin, [1789], as published in the binomen *Muscicapa luzoniensis;*
(j) *merula* Lesson, 1828, as published in the binomen *Saxicola merula*;
(k) *schistacea* De Vis, 1897, as published in the binomen *Meliornis schistacea.*

(2) The following specific names, as suppressed under the plenary powers in (1) above, are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name Numbers specified:

(a) *cothurnix* Scopoli, 1786, as published in the binomen *Oriolus cothurnix* (Name No. 769);
(b) *Novae Guineae* Gmelin, [1789], as published in the binomen *Tetrao Novae Guineae* (Name No. 770);
(c) *Novae Guineae* Latham, 1790 as published in the binomen *Perdix Novae Guineae* (Name No. 771);
(d) *brazieri* Sclater, 1869, as published in the binomen *Megapodius brazieri* (Name No. 772);
(e) *rufulus* Vieillot, 1817, as published in the binomen *Cuculus rufulus* (Name No. 773);
(f) *tyrannulus* De Vis, 1905, as published in the binomen *Sericornis tyrannulus* (Name No. 774);
(g) *montana* De Vis, 1897, as published in the binomen *Crateroscelis montana* (Name No. 775);
(h) *tessacourbe* Scopoli, 1786, as published in the binomen *Muscicapa tessacourbe* (Name No. 776);
(i) *luzoniensis* Gmelin, [1789], as published in the binomen *Muscicapa luzoniensis* (Name No. 777);

(j) *merula* Lesson, 1828, as published in the binomen *Saxicola merula* (Name No. 778);

(k) *schistacea* De Vis, 1897, as published in the binomen *Meliornis schistacea* (Name No. 779).

HISTORY OF THE CASE (Z.N.(S.) 1033)

The present case was first submitted to the Commission by Professor Ernst Mayr, in March 1956. In August 1961 a revised application, was sent to the printer and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 23–26. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to twelve ornithological serials. No objection was received.

DECISION OF THE COMMISSION

On 18 January 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)3 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 23–26. At the close of the prescribed voting period on 18 April 1963, the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Hering, Holthuis, Bonnet, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Jaczewski, Bradley, Stoll, do Amaral, Hemming, Binder, Brinck, Boschma, Tortonese, Mertens, Kühnelt, Evans.

Negative votes—none (0).

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioners Borchsenius and Miller returned late affirmative votes.

ORIGINAL REFERENCES

The following are the original references for names placed on the Official Index of Specific Names by the Ruling given in the present Opinion:

brazieri, *Megapodius*, Sclater, 1869, *Proc. zool. Soc. Lond.* **1869** : 529
cothurnix, *Oriolus*, Scopoli, 1786, *Delic. Flor. Faun. insubr.* **1** : 87, sp. 33
luzoniensis, *Muscicapa*, Gmelin, [1789], *Syst. Nat.* (ed. 13) **1**(2) : 942
merula, *Saxicola*, Lesson, 1828, *Voy. Coquille*, Zool., **1**(2) : 622
montana, *Crateroscelis*, De Vis, 1897, *Ibis* : 387
Novae Guineae, *Perdix*, Latham, 1790, *Ind. Orn.* **II** : 655, no. 39
Novae Guineae, *Tetrao*, Gmelin, [1789], *Syst. Nat.* (ed. 13) **1**(2) : 746 (bis)
rufulus, *Cuculus*, Vieillot, 1817, *Nouv. Dict. Hist. nat.* (nouv. éd.) **8** : 234
schistacea, *Meliornis*, De Vis, 1897, *Ibis*: 381
tessacourbe, *Muscicapa*, Scopoli, 1786, *Delic. Flor. Faun. insubr.* **2** : 95
tyrannulus, *Sericornis*, De Vis, 1905, *Ann. Queensl. Mus.*, No. 6 : 42

CERTIFICATE

I certify that the votes cast on Voting Paper (63)3 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 684.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
24 *April* 1963

OPINION 685

AMMONITES LAEVIGATA LAMARCK, 1822 (CEPHALOPODA): SUPPRESSED UNDER THE PLENARY POWERS; TOGETHER WITH THE VALIDATION OF TWO NOMINAL SPECIES NAMED *AMMONITES LAEVIGATUS* BY J. DE C. SOWERBY, 1827

RULING.—(1) Under the plenary powers:

(a) the specific name *laevigata* Lamarck, 1822, as published in the binomen *Ammonites laevigata*, is hereby suppressed for the purposes of both the Law of Priority and the Law of Homonymy;

(b) the operation of the Law of Homonymy is hereby suspended in the case of *Ammonites laevigatus* J. de C. Sowerby, (1827 : 135) in order that it be not invalidated by *Ammonites laevigatus* J. de C. Sowerby, (1827 : 93).

(2) The following specific names are hereby placed on the Official List of Specific Names in Zoology with the Name Numbers specified:

(a) *laevigatus* J. de C. Sowerby, 1827 (: 93), as published in the binomen *Ammonites laevigatus* (Name No. 1943);

(b) *laevigatus* J. de C. Sowerby, 1827 (:135), as published in the binomen *Ammonites laevigatus* (Name No. 1944).

(3) The specific name *laevigata* Lamarck, 1822, as published in the binomen *Ammonites laevigata* (as suppressed under the plenary powers in (1) above) is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology with the Name No. 780.

HISTORY OF THE CASE (Z.N.(S.) 1203)

The present case was submitted to the office of the Commission by Dr. D. T. Donovan and Mr. C. W. Wright in February 1957. The application was sent to the printer on 13 July 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 35–38. Public Notice of the possible use of the plenary powers in the present case was given in the same part of the *Bulletin* as well as to the other prescribed serial publications (*Bull. zool. Nomencl.* **4** : 51–56) and to three palaeontological serials. The proposals were supported by Mr. R. V. Melville, Dr. R. Casey (*Bull. zool. Nomencl.* **19** : 267), Dr. H. Ivimey Cook and Dr. H. Frebold.

DECISION OF THE COMMISSION

On 18 January 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)4 either for or against the proposals set out in *Bull. zool. Nomencl.* **19** : 36–37. At the close of the prescribed voting period on 18 April 1963 the state of the voting was as follows:

Affirmative votes—twenty-one (21), received in the following order: China, Hering, Bonnet, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Jaczewski, Stoll, do Amaral, Hemming, Binder, Brinck, Tortonese, Mertens, Kühnelt, Evans.

Negative votes—three (3): Holthuis, Bradley, Boschma.

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioners Borchsenius and Miller returned late affirmative votes.

The following comments were made by Commissioners in returning their Voting Papers:

Dr. L. B. Holthuis (25.i.63): (1) I do not think that the Commission should allow two primary homonyms to be both valid names—and certainly not in this case where both are junior homonyms of a third name. (2) As long as the applicants have not tried to identify *Ammonites laevigata* Lamarck, it seems incorrect for the Commission to take any action concerning this name.

Prof. E. Binder (22.iii.63): Lamarck's type material of this species is not in his collection in the Museum of Geneva, and as far as I know is probably lost. This renders the proposal even more justified.

ORIGINAL REFERENCES

The following are the original references for the specific names placed on the Official List and Index by the Ruling given in the present Opinion:

laevigata, *Ammonites*, Lamarck, 1822, *Hist. nat. Anim. sans Vertèbr.* **7** : 637
laevigatus, *Ammonites*, J. de C. Sowerby, 1827, *Min. Conch.* **6** : 93
laevigatus, *Ammonites*, J. de C. Sowerby, 1827, *Min. Conch.* **6** : 135

CERTIFICATE

I certify that the votes cast on Voting Paper (63)4 were cast as set out above, that the proposal set out in that Voting Paper has been duly adopted under the plenary powers, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 685.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
29 *April* 1963

OPINION 686

AMYOT, *MÉTHODE MONONYMIQUE*: PLACED ON THE OFFICIAL INDEX OF REJECTED AND INVALID WORKS IN ZOOLOGICAL NOMENCLATURE

RULING.—(1) The following work is hereby placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature with the Title No. 67: Amyot (C. J. B.), 1845–1847, *Entomologie Française*, *Rhynchotes*, *Méthode Mononymique*. (Published in parts, 1845, *Ann. Soc. ent. France* (2)**3** : 369–492, t. 8.9; 1846, *ibid.* **4** : 73–192, 359–452, t. 10; 1847, *ibid.* **5** : 453–542, t. 2–7; and in 1848 in a separate repaged edition, Paris and London) (rejected because the author did not apply the principles of binominal nomenclature).

HISTORY OF THE CASE (Z.N.(S.) 1478)

The present case was presented to the office of the Commission in April 1961 by Dr. Wolfang Stichel. An application was sent to the printer on 20 June 1961 and was published on 2 February 1962 in *Bull. zool. Nomencl.* **19** : 42. No objection to the proposal was received.

DECISION OF THE COMMISSION

On 18 January 1963 the Members of the Commission were invited to vote under the Three-Month Rule on Voting Paper (63)5 either for or against the proposal set out in *Bull. zool. Nomencl.* **19** : 42. At the close of the prescribed voting period on 18 April 1963 the state of the voting was as follows:

Affirmative votes—twenty-four (24), received in the following order: China, Hering, Holthuis, Jaczewski, Bonnet, Vokes, Obruchev, Key, Riley, Mayr, Uchida, Lemche, Alvarado, Bradley, Stoll, do Amaral, Hemming, Binder, Brinck, Boschma, Tortonese, Mertens, Kühnelt, Evans.

Negative votes—none (0).

On Leave of Absence—one (1): Prantl.

Voting Papers not returned—one (1): Munroe.

Commissioners Borchsenius and Miller returned late affirmative votes.

CERTIFICATE

I certify that the votes cast on Voting Paper (63)5 were cast as set out above, that the proposal contained in that Voting Paper has been duly adopted, and that the decision so taken, being the decision of the International Commission, is truly recorded in the present Opinion No. 686.

W. E. CHINA
Acting Secretary
International Commission on Zoological Nomenclature
London
30 *April* 1963

STENORHYNCHUS LAMARCK, 1818 (CRUSTACEA, DECAPODA): PROPOSED VALIDATION UNDER THE PLENARY POWERS WITH DESIGNATION OF *CANCER SETICORNIS* HERBST, 1788, AS TYPE-SPECIES. Z.N.(S.) 751

By John S. Garth (*Allan Hancock Foundation, Los Angeles, U.S.A.*) and Lipke B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The generic name *Stenorynchus* Lamarck at present is in general use for a genus of spider crabs which inhabits the tropical American and West African seas. From a nomenclatorial viewpoint, however, this name for two reasons cannot be used for the genus in question. In order to avoid unnecessary confusion in the nomenclature of this genus, the International Commission on Zoological Nomenclature is hereby asked to make use of its plenary powers so as to make possible the continued use of the generic name *Stenorynchus* in the sense adopted by modern authors.

The following are the original references to the generic names dealt with in the present proposal:

Inachus Weber, 1795, *Nomencl. entomol.*: 93 (type-species, selected by Milne Edwards (H.), 1837 (Cuvier's *Règne Anim.* ed. 4 (= Discip. ed.) **18** : pl. 34 fig. 2): *Cancer scorpio* Fabricius, 1779, *Reise Norwegen*: 345 (= *Cancer dorsettensis* Pennant, 1777, *Brit. Zool.* (ed. 4) **4** : 8)). Gender: masculine.

Leptopodia [Leach, 1814], *in* Brewster's *Edinb. Encycl.* **7** : 431 (type-species, by present selection: *Cancer phalangium* Fabricius, 1775, *Syst. Ent.*: 408). Gender: feminine.

Macropodia [Leach, 1814], *in* Brewster's *Edinb. Encycl.* **7**: 395 (type-species, by monotypy: *Cancer longirostris* Fabricius, 1775, *Syst. Ent.*: 408). Gender: feminine.

Macropus Latreille, [1802–1803], *Hist. nat. Crust. Ins.* **3** : 27 (type-species, by monotypy: *Cancer phalangium* Fabricius, 1775, *Syst. Ent.*: 408). Gender: masculine.

Pactolus Leach, 1815, *Zool. Miscell.* **2** : 19 (type-species, by monotypy: *Pactolus boscii* Leach, 1815, *Zool. Miscell.* **2** : 20). Gender: masculine.

Stenorynchus Lamarck, 1818, *Hist. nat. Anim. sans Vertèbr.* **5** : 236 (type-species, selected by Milne Edwards (H.), 1837 (Cuvier's *Règne Anim.* ed. 4 (= Discip. ed.) **18** : pl. 35 fig. 3): *Cancer phalangium* Fabricius, 1775, *Syst. Ent.*: 408). Gender: masculine.

The genus which at present is generally named *Stenorynchus* Lamarck contains two species: *Cancer seticornis* Herbst, 1788, from the East coast of America and the West coast of Africa, and *Leptopodia debilis* Smith (S. I.), 1871, from the West coast of America. Until 1897 this genus was generally named *Leptopodia* Leach, but Rathbun (1897, *Proc. biol. Soc. Washington* **11** : 155) pointed out that, since the original description of *Leptopodia* included neither *Cancer seticornis* nor *Leptopodia debilis*, the name *Leptopodia* cannot be used for the genus. Rathbun (1897 : 158) further concluded that the name *Stenorynchus* Lamarck, 1818, was available for the genus, it being a name given to two species, *S. phalangium* (Fabricius) and *S. seticornis* (Herbst), and proceeded to designate *S. seticornis* as the type-species of *Stenorynchus*. The present writers, while agreeing with the desirability of the objectives thus attained, wish to point out that Rathbun's selection of *Cancer seticornis* as the type-species of *Stenorynchus* is invalidated by the earlier selection by H. Milne Edwards (1837) of *S. phalangium* (= *Cancer phalangium* Fabricius), which selection has the result of making the name *Stenorynchus* unavailable under the present code for the genus containing *Cancer seticornis*.

The Rathbun designation was based upon the reasoning that, since *Stenorynchus phalangium* was already a member of the genus *Macropodia*, its alternate, *S. seticornis*, becomes, ipso facto, the type of *Stenorynchus*. This conclusion, which was based on the Code of the American Ornithologists' Union then in use, does not necessarily obtain under the present International Code of Zoological Nomenclature. The Milne Edward selection of *S. phalangium* as the type of the genus *Stenorhynchus*, which dating from 1837 is the earliest valid type selection for the genus known to us, makes *Stenorynchus* Lamarck, 1818, an objective synonym of the older *Leptopodia* [Leach, 1814], and together with *Leptopodia* a subjective synonym of *Inachus* Weber, 1795. *Cancer phalangium* Fabricius, 1775, the type-species of both the genera *Stenorynchus* Lamarck and *Leptopodia* Leach, namely, is not, as thought by the majority of carcinologists, a subjective synonym of *Cancer rostratus* L., 1761, and therefore a member of the genus *Macropodia* [Leach, 1814], but is, as shown by Rathbun (1897, *Proc. biol. Soc. Washington* **11** : 162, footnote) synonymous with *Inachus dorynchus* [Leach, 1814], and thus belongs in the genus *Inachus* Weber, 1795. Monod (1956, *Mem. Inst. Franç. Afr. Noire* **45** : 531) followed the correct course and substituted the name *phalangium* Fabricius, 1775, for that of *dorynchus* [Leach, 1814].

We believe it highly desirable that the name *Stenorynchus* should be made available for the genus containing *Cancer seticornis* Herbst, and that this species should be made its type-species; in view of the facts stated above it is apparent that this result can be achieved only through a suspension of the Rules by intervention of the Commission's plenary powers.

The original description of the genus *Stenorynchus* contains a sentence which reads as follows (Lamarck, 1818, *Hist. nat. Anim. sans Vertèbr.* **5** : 236): " Les *sténorynques*, qu'on a aussi nommés macropes, macropodes et leptopodes . . ". At first it seemed possible to us to interpret this sentence so that one might conclude from it that Lamarck indicated that the generic name *Stenorynchus* is a substitute name for the generic names *Macropus* Latreille, [1802–1803], *Macropodia* [Leach, 1814], and *Leptopodia* [Leach, 1814], which he obviously considered synonyms. However, Lamarck's action does not fully comply with paragraph i of article 67 of the International Code of Zoological Nomenclature, since he does not expressly state that *Stenorynchus* is a substitute name for a prior generic name. *Stenorynchus* therefore cannot be considered a substitute name and thus its type-species must be selected from the two included species: *Cancer phalangium* Fabricius, 1775, and *Cancer seticornis* Herbst, 1788.

A second obstacle in our effort to make the name *Stenorynchus* Lamarck, 1818, available for the genus in question is offered by the generic name *Pactolus*

Leach, 1815. Leach, 1815, described his new genus *Pactolus* with one (new) species *Pactolus boscii*. The figure which Leach gave of his new species shows that it is based on a specimen formed from the parts of at least two species of crustaceans. The carapace of this specimen certainly is that of *Cancer seticornis* Herbst, but the legs obviously belong to a different species, the identity of which is not known. That *Pactolus* is based on a composite specimen was pointed out for the first time by De Haan (1839, *Fauna Japonica, Crust.* (4) : 89). Miers, 1879 (*Journ. Linn. Soc. Lond.* (Zool.) **14** : 643) cites *Pactolus* as a synonym of the genus dealt with here, which genus was mentioned by Miers under the incorrect name *Leptopodia* Leach. In order definitely to end the uncertain status of the species *Pactolus boscii* Leach, we now select, in harmony with the intentions of Miers (1879), the specimen to which belongs the carapace of the composite type specimen of Leach's species as the lectotype of *Pactolus boscii* Leach. By this action *Pactolus boscii* becomes a subjective junior synonym of *Cancer seticornis* Herbst. However, even if now the type-species of *Stenorynchus* under the plenary powers of the Commission is designated to be *Cancer seticornis* Herbst, then the generic name *Stenorynchus* Lamarck, 1818, still is not available for the genus in question, since the generic name *Pactolus* Leach, 1815, for the same genus, is older. In order to make the use of the generic name *Stenorynchus* in the current sense possible, it is necessary also to suppress the generic name *Pactolus*.

The original spelling of the name under consideration here is *Stenorynchus*, which probably is a misspelling of *Stenorhynchus*. In order to have the spelling of the termination of this name identical with that of the numerous generic names with the ending " –rhynchus ", we ask the International Commission on Zoological Nomenclature to use its plenary powers to emend the original spelling *Stenorynchus* to the grammatically more correct *Stenorhynchus*. The first author who, to our knowledge, used the correct spelling *Stenorhynchus* is Desmarest (1823, *Dict. Sci. nat.* **28** : 268), who in the synonymy of *Leptopodia* Leach cited *Stenorhynchus* Lamarck, though in the synonymy of *Macropodia* Leach (on p. 267) the same name was cited in the spelling *Stenorynchus*. Many later authors, like H. Milne Edwards, adopted the spelling *Stenorhynchus*.

According to Article 30 par. (a) (3) the gender of *Stenorhynchus* is masculine.

We think it desirable to use this opportunity to ask for the insertion in the Official List of Generic Names in Zoology of the generic names *Inachus* Weber, 1795, and *Macropodia* [Leach, 1814], which names, as far as we can ascertain are the oldest available names for the genera in question and are in common use for these genera. The generic name *Macropus* Latreille, [1802–1803], being a junior homonym of *Macropus* Shaw and Nodder, 1790, should be placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

As far as family names are concerned the Crustacean genera *Inachus* Weber, 1795, *Leptopodia* [Leach, 1814], *Macropodia* [Leach, 1814], and *Stenorhynchus* Lamarck, 1818, all have been taken, some time or other, as the type-genus of a taxon belonging to the family group. In current Decapod taxonomy all these genera are considered to belong to one single subfamily of the family MAJIDAE, generally indicated with the name INACHINAE. However, as shown by the following synonymy, the name MACROPODIINAE has priority and will have to be used in its stead unless action is taken to save INACHINAE, as hereinafter proposed.

MACROPODIADAE Samouelle, 1819, *Entom. usef. Compend.* : 90
MACROPODIENS Milne Edwards (H.), 1834, *Hist. nat. Crust.* **1** : 272, 273
INACHINAE McLeay, 1838, *Illustr. Annul. S. Afr.* : 55, 56
INACHIDA McLeay, 1838, *Illustr. Annul. S. Afr.* : 56
MACROPODIAE McLeay, 1838, *Illustr. Annul. S. Afr.* : 56
MACROPODITES Lucas, 1842, *Hist. nat. Crust. Arachn. Myriap.* : 143
LEPTOPODIADAE Bell, 1844, *Hist. Brit. stalk-eyed Crust.* (1) : 1
MACROPODINEA Dana, 1852, *U.S. Explor. Exped.* **13** : 75, 76
LEPTOPODIDAE Dana, 1852, *U.S. Explor. Exped.* **13** : 77, 83
INACHINAE Dana, 1852, *U.S. Explor. Exped.* **13** : 78
LEPTOPODINAE Dana, 1852, *U.S. Explor. Exped.* **13** : 83
STENORHYNCHINAE Dana, 1852, *U.S. Explor. Exped.* **13** : 83
INACHIENS Desmarest (E.), 1858, in Chenu, *Encycl. Hist. nat.* (*Crust. Moll. Zooph.*) : 12
LEPTOPODIIDAE Stimpson, 1870, *Bull. Mus. comp. Zoöl.*, Harvard **2** : 125
LEPTOPODIINAE Stimpson, 1870, *Bull. Mus. comp. Zoöl.*, Harvard **2** : 125
LEPTOPODIOIDA Alcock, 1895, *Journ. asiat. Soc. Bengal* (2) **64** : 160, 162
INACHOIDA Alcock, 1895, *Journ. asiat. Soc. Bengal* (2) **64** : 160, 163, 185

There are two reasons which, in our opinion, make it desirable to save the name INACHINAE for the subfamily in question. The first of these is that the name INACHINAE at present is in general use, while that of MACROPODIINAE is very unfamiliar to carcinologists. Secondly, the names MACROPODIIDAE and MACROPODIINAE for family-group taxa of Crustacea so closely resemble those of MACROPODIDAE and MACROPODINAE for family-group taxa of Mammalia, that this might give rise to a confusion, which will not occur if the name INACHINAE is employed for the crabs.

The mammalian genus *Macropus* Shaw and Nodder, 1790, has been dealt with in a separate proposal (*Bull. zool. Nomencl.* **20** : 376–379) and is not further considered here.

The concrete proposals which we now submit to the International Commission on Zoological Nomenclature are that they should:—

(1) use their plenary powers to:—
  (a) suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy, the generic name *Pactolus* Leach, 1815;
  (b) set aside all designations or selections of type-species for the genus *Stenorynchus* Lamarck, 1818, made prior to the proposed decision, and having done so to
  (c) designate *Cancer seticornis* Herbst (1788, *Vers. Naturgesch. Krabben Krebse* **1**(7) : 229) to be the type-species of the foregoing genus;
  (d) validate the emendation *Stenorhynchus* of the generic name *Stenorynchus* Lamarck, 1818;
  (e) direct that the family-group name INACHINAE McLeay, 1838 (*Illustr. Annul. S. Afr.* : 56) (type-genus: *Inachus* Weber, 1795)

is not to be rejected in favour of the name MACROPODIINAE (emendation of MACROPODIADAE) Samouelle, 1819 (*Entom. usef. Compend.* : 90) (type-genus: *Macropodia* [Leach, 1814]) by any worker who on taxonomic grounds places the genus *Macropodia* [Leach, 1814], in the same family-group taxon as *Inachus* Weber, 1795;

(2) place on the Official List of Generic Names in Zoology the undermentioned names (the original references for the first two being given in par. 2 of the present application):
   (a) *Inachus* Weber, 1795;
   (b) *Macropodia* [Leach, 1814];
   (c) *Stenorhynchus* (emendation, as validated under (1) (d) above, of *Stenorynchus*) Lamarck, 1818 (*Hist. nat. Anim. sans Vertèbr.* **5** : 236) (type-species, as designated under (1) (c) above: *Cancer seticornis* Herbst, 1788) (gender: masculine);

(3) place on the Official Index of Rejected and Invalid Generic Names in Zoology the undermentioned names:—
   (a) *Macropus* Latreille, [1802–1803] (a junior homonym of *Macropus* Shaw and Nodder, 1790);
   (b) *Pactolus* Leach, 1815 (as suppressed under (1) (a) above);
   (c) *Stenorynchus* (invalid original spelling of *Stenorhynchus*) Lamarck, 1818;

(4) place on the Official List of Specific Names in Zoology the undermentioned names:—
   (a) *debilis* Smith (S. I.), 1871 (*Rep. Peabody Acad. Sci.* **1869** & **1870** (app.) : 87) as published in the combination *Leptopodia debilis*;
   (b) *dorsettensis* Pennant, 1777 (*Brit. Zool.* (ed. 4) **4** : 8) as published in the combination *Cancer dorsettensis* (oldest available name for the type-species of the genus *Inachus* Weber, 1795);
   (c) *longirostris* Fabricius, 1775 (*Syst. Ent.*: 408) as published in the combination *Cancer longirostris* (the name of the type-species of the genus *Macropodia* Leach, 1814);
   (d) *phalangium* Fabricius, 1775 (*Syst. Ent.*: 408) as published in the combination *Cancer phalangium*;
   (e) *rostratus* Linnaeus, 1761 (*Fauna Suecica* (ed. 2) : 493) as published in the combination *Cancer rostratus*;
   (f) *seticornis* Herbst, 1788 (*Vers. Naturgesch. Krabben Krebse* **1**(7) : 229) as published in the combination *Cancer seticornis* (the name of the type-species of the genus *Stenorhynchus* Lamarck, 1818);

(5) place on the Official List of Family-Group Names in Zoology the name INACHIDAE McLeay, 1838 (a family-group name to be given preference under the plenary powers under (1) (e) above over the family-group name MACROPODIINAE (emendation of MACROPODIADAE) Samouelle, 1819, by any author who may consider the genera *Inachus* Weber, 1795, and *Macropodia* [Leach, 1814], as belonging to the same family-group taxon.

CHAETODERMA LOVÉN, 1844 (MOLLUSCA), AND *CHAETODERMIS* SWAINSON, 1839 (PISCES): PROPOSED ADDITION TO THE OFFICIAL LIST OF GENERIC NAMES. Z.N.(S.) 1250

By David Heppell (*British Museum (Natural History), London*)

Chaetoderma Lovén, 1844 was established as a new genus of Echinodermata with the single included species *C. nitidulum* n.sp. This species was later recognized to be an aplacophoran mollusc. *Chaetoderma* Lovén is the type-genus of the family CHAETODERMATIDAE von Jhering, 1876, the sole family of the order which comprises unisexual aplacophorans without a distinct ventral groove, and for which several names are in present use by different systematists. The genus has been used as a representative of the order in general text-books of Zoology, as well as in works referring exclusively to the Mollusca.

2. *Crystallophrisson* Möbius, 1875 was established as a new genus of Gephyrea, with the single included species *C. nitens* n.sp. The species was later regarded by Möbius as synonymous with *Chaetoderma nitidulum* Lovén, 1844 (Lütken, 1877).

3. Winckworth, 1932 used the name *Crystallophrisson* Möbius, 1875 to include *nitidulum* Lovén, 1844, as he believed *Chaetoderma* Lovén to be preoccupied in Pisces by *Chaetoderma* Swainson, 1839. Thiele (1932) also indicates this apparent pre-occupation, and has been followed by Boettger (1956), Fischer-Piette & Franc (1960) and others.

4. Graff (1875), Wirén (1892), Simroth (1893), Pilsbry (1898), Heath (1911, 1918), Thiele (1913), Hoffman (1929), Muus (1959) and Smith (1960) all use the name *Chaetoderma* for the mollusc, *Crystallophrisson* if mentioned at all being placed in the synonymy of the former genus.

5. An example of multiple original spellings occurs in Swainson, 1839, where a new genus-group name for a plectognathous fish appears three times, each time differently spelled. The name is proposed as a new sub-genus of *Monacanthus* and appears as follows:—

Choetoderma (p. 194), *Chaetodermis* (p. 327) and *Chaetoderma* (p. 441 [Index]). On p. 194, the type is broken in the word concerned, the diphthong œ appearing rather like an æ, and consequently the æ spelling appears in nomenclators as of p. 194, the œ spelling being overlooked. Both *Chaetodermis* and *Chaetoderma* have been used for the fish genus by subsequent authors, for example:

Waite (1905), Jordan (1919), Suvatti (1936) [*Chaetodermis*];
McCulloch (1929), Fraser-Brunner (1941) [*Chaetoderma*].

6. According to the International Code of Zoological Nomenclature, 1961, Article 32 (b), if a name is spelled in more than one way in the original publication, the spelling adopted by the first reviser is to be accepted as the correct original spelling. In this case the first reviser is Agassiz (1845), who refers to the genus as *Chaetodermis*. Cantor (1849) quotes *Chaetodermis penicilligerus* in the synonymy of *Monacanthus penicilligerus*, and Bleeker (1858) similarly quotes the name as synonymous with *Monacanthus*, but later (1865, 1866) raises it to full generic rank.

7. According to Article 32 (c) of the International Code of Zoological Nomenclature, any of the multiple original spellings not adopted by the first reviser is an incorrect original spelling, has no separate status in nomenclature, and does not enter into homonymy.

8. The original nominal species included in *Chaetodermis* are

(i) *spinosissimus* Frey. (i.e. *Balistes spinosissimus* Quoy & Gaimard, 1824) and

(ii) *pennicilligerus* Cuv. (i.e. *Balistes penicilligerus* Cuvier, 1817 ex Péron MS; the reference to pl. 12 is an error for pl. 9). These two species have been considered synonymous by subsequent workers. The type-species has often been cited erroneously as *B. spinosissimus* by monotypy, whereas in fact the earliest type-designation is *penicilligerus* by Bleeker (1866) (as *Chaetodermis penicilligerus* Swns.). In the original publication this name is spelled, inconsistently, *penicilligerus* (p. 185) and *pennicilligerus* (legend to pl. 9); the first reviser (Schinz, 1822) adopts the former spelling.

9. Referring to what is stated above, I ask the International Commission on Zoological Nomenclature:

- (1) to place the following specific names on the Official List of Specific Names in Zoology:
  - (a) *penicilligerus* Cuvier, 1817 as published in the binomen *Balistes penicilligerus* (type-species of *Chaetodermis* Swainson, 1839);
  - (b) *nitidulum* Lovén, 1844 as published in the binomen *Chaetoderma nitidulum* (type-species of *Chaetoderma* Lovén, 1844);
- (2) to place the following generic names on the Official List of Generic Names in Zoology:
  - (a) *Chaetodermis* Swainson, 1839 (gender : masculine), type-species by designation by Bleeker, 1866: *Balistes penicilligerus* Cuvier, 1817;
  - (b) *Chaetoderma* Lovén, 1844 (gender : neuter), type-species by monotypy: *Chaetoderma nitidulum* Lovén, 1844;
- (3) to place the family-group name CHAETODERMATIDAE (*nom. correct.* Simroth, 1893 *pro* CHAETODERMATA) von Jhering, 1876 (type-genus: *Chaetoderma* Lovén, 1844) on the Official List of Family-Group Names in Zoology;
- (4) to place the specific name *pennicilligerus* Cuvier, 1817 as published in the binomen *Balistes pennicilligerus* (an incorrect original spelling for *penicilligerus* Cuvier, 1817) on the Official Index of Rejected and Invalid Specific Names in Zoology;
- (5) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  - (a) *Choetoderma* Swainson, 1839 (an incorrect original spelling for *Chaetodermis* Swainson, 1839);
  - (b) *Chaetoderma* Swainson, 1839 (an incorrect original spelling for *Chaetodermis* Swainson, 1839);
  - (c) *Chetoderma* Kowalevsky & Marion, 1887 (an incorrect subsequent spelling for *Chaetoderma* Lovén, 1844);

(d) *Chaetoderma* Moser, 1907 (a junior homonym of *Chaetoderma* Lovén, 1844);
(e) *Crystallophrysson* Graff, 1875 (an incorrect subsequent spelling for *Crystallophrisson* Möbius, 1875);
(f) *Chrystallophrysson* Wirén, 1892 (an incorrect subsequent spelling for *Crystallophrisson* Möbius, 1875);
(g) *Chrystallophrisson* Lütken, 1877) (an incorrect subsequent spelling for *Crystallophrisson* Möbius, 1875).

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CHAPMANINA SILVESTRI, 1931 (FORAMINIFERA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS.

Z.N.(S.) 1402

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Foraminifera in Italy were misidentified by Airaghi (1904, pp. 159–174; 1904–A, 182–188, pl. 5, figs. 1–4) as *Conulites aegyptiensis* (Chapman) (= *Patellina egyptiensis* C.) of the Egyptian Eocene.

2. Silvestri and Prever (in Silvestri, 1904) based their monotypic genus *Chapmania* (not Monticelli, 1893) upon the Italian occurrence, perpetuating the misidentification as *Chapmania aegyptiensis* (Chapman). *Patellina egyptiensis* Chapman, 1900, however, is type by subsequent designation of *Dictyoconus* Blanckenhorn, 1900 (see Frizzell, 1948, 19).

3. Silvestri later (1905, pp. 481–482, 485 footnote 2) suspected the fundamental distinction between the Egyptian and Italian forms, proposing provisionally the name *Chapmania gassinensis* for the latter. Subsequently (1905–A), he confirmed the generic and specific identity of *C. gassinensis* and treated the species formally under that name. *Chapmania gassinensis* was accepted by nearly all foraminiferologists from 1905 to 1931.

4. Rhumbler (1913, p. 392, text figs. 131 a–c) applied his zoological formula (1910, 1912) to Silvestri's nominal species, changing it to "*Archapmanoum gassinicoum* Silvestri m' " Frizzell (1949) has pointed out that Opinion 72 of the International Commission on Zoological Nomenclature (1922) rejected Rhumbler's designations implicitly, although regrettably not explicitly. As far as can be determined, those non-nominal terms have never been accepted and need not be cited in synonymy.

5. Silvestri (1931) recognized *Chapmania* Silvestri and Prever as a junior homonym of *Chapmania* Monticelli, 1893, proposing for it a substitute name *Chapmanina*. No type was designated. Since 1931, the genus *Chapmanina* has uniformly been accepted, with *C. gassinensis* (Silvestri) as type.

6. Frizzell (1949) published an extended account of *Chapmanina* and its allies. He has accepted the type as *Chapmania gassinensis* (by substitution), but indicated that action by the International Commission on Zoological Nomenclature is required to validate this conclusion. The Subfamily Chapmanininae Frizzell (from Chapmaniidae Galloway, 1933, revised), Family Rotaliidae, contained the genera *Ferayina* Frizzell, 1949, *Preverina* Frizzell, 1949, and *Chapmanina* Silvestri, 1931.

7. The Chapmanininae currently and correctly is placed within the Discorbidae Cushman (Sigal, 1952; from Discorbisinae Cushman, 1927, = Rotaliidae of Cushman's and Frizzell's usage). *Crespinina* Wase, 1955, recently has been added to the subfamily. The Chapmanininae is a compact, coherent lineage of advanced discorbid genera.

Bull. zool. Nomencl., Vol. 20, Part 6. December 1963.

8. *Chapmanina* Silvestri, 1931, as a substitute name, obviously has the same type-species as *Chapmania* Silvestri and Prever, 1905, (not Monticelli, 1893). *Chapmania*, however, clearly is a genus based upon a misidentified species (*C. aegyptiensis* Silvestri and Prever, not Chapman, = *C. gassinensis* Silvestri).

The Rules of Nomenclature stipulate that such cases are to be submitted to the Commission. A decision that *Patellina egyptiensis* was to be regarded as the type-species of *Chapmania* would reduce their generic name and its substitute *Chapmanina* to the status of junior objective synonyms of *Dictyoconus* Blanckenhorn, 1900. "*Archapmanoum* m'" Rhumbler, 1913, is ineligible to replace *Chapmanina*, as it is a formula rather than a name. The generic biological entity would be left nameless, and the Subfamily Chapmanininae (its name changed) could cause confusion within another family.

9. To preserve *Chapmanina* and the Chapmanininae, as currently used, the International Commission on Zoological Nomenclature is requested:

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Chapmanina* Silvestri, 1931, made prior to the Ruling now requested, and, having done so to designate the nominal species *Chapmania gassinensis* Silvestri, 1905, to be the type-species of that genus;

(2) to place the generic name *Chapmanina* Silvestri, 1931 (gender : feminine), type-species, by designation under the plenary powers in (1) above, *Chapmania gassinensis* Silvestri, 1905, on the Official List of Generic Names in Zoology;

(3) to place the specific name *gassinensis* Silvestri, 1905, as published in the binomen *Chapmania gassinensis* (type-species of *Chapmanina* Silvestri, 1931) on the Official List of Specific Names in Zoology;

(4) to place the specific name *Chapmania* Silvestri & Prever, 1904 (a junior homonym of *Chapmania* Monticelli, 1893) on the Official Index of Rejected and Invalid Generic Names in Zoology.

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LEPTOCORIXA BERTHOLD, 1827 (INSECTA, HEMIPTERA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS IN FAVOUR OF *LEPTOCORISA* LATREILLE, 1829 Z.N.(S.) 1589

By W. E. China (*British Museum* (*Natural History*), *London*) and
Imtiaz Ahmad (*Imperial College of Science*, *London*, *England*)

There has been much confusion regarding the nomenclature of the genus *Leptocorisa* Latreille, 1829. Van Duzee, 1914, has shown that the first name for the taxon was *Myodocha* established by Latreille, 1807, with three species, a Leptocorisid, *Cimex tipuloides* De Geer, a Reduviid, *Cimex trispinosa* De Geer, and a Lygaeid *Cimex fulvipes* De Geer. His generic diagnosis did not agree well with any of these species and it is generally believed that Latreille had made a mistake. In 1810 Latreille himself designated the Lygaeid *Myodocha serripes* as type-species of *Myodocha* Latreille but this was invalid since the species was not one of the original species and in fact was not described until 1811 when Olivier redescribed *Myodochus* (sic) Latreille. Leach, 1815, did not designate *Cimex tipuloides* De Geer as type-species of *Myodocha* as Van Duzee thought, but merely cited this species as an example of the genus. If this had been a valid type-designation, as insisted by Kirkaldy, 1900, *Myodocha* would replace *Leptocorixa* Berthold, 1827.

Slater, Barber and Sailer, 1961, in an application to the International Commission (*Bull. zool. Nomencl.* 18 : 278–288) explained the above sequence of events and requested that *Myodochus* (sic) *serripes* Olivier, 1811, be designated as type-species of *Myodocha* Latreille, 1807, thus eliminating this name as a possibility for the Coreid Rice-bugs. This request was granted by the Commission in Opinion 669 (*Bull. zool. Nomencl.* 20 : 274–275).

2. Latreille, 1825, was the first to establish a generic name for the Coreid Rice-bugs but he used the French vernacular *Leptocorise*, so that being non-latinized it was invalid. It was not a nomen nudum as Van Duzee thought since Latreille gave characters distinguishing it from *Alydus*. No species were included. Berthold, 1827, in his German translation of Latreille's work changed the French vernacular *Leptocorise* to the latinized *Leptocorixa*. Here again Van Duzee was wrong in stating that this name was a nomen nudum since the translated differentiation between *Alydus* and *Leptocorixa* is sufficient indication without mention of species: *Leptocorixa* Berthold, 1827, is therefore available and antedates *Leptocorisa* Latreille, 1829. It was used by Kirkaldy (1909), Reuter (1913), Bergroth (1913), Blöte (1937), Hussey (1951) and Villiers (1955).

3. Latreille, 1829, was the first to use the name *Leptocorisa* in a valid manner although the validating description was only a few words, " A antennes droites." In a footnote he also wrote: " Les *gerris* de Fabricius à l'exception du *vagabundus* " [Syst. Rhyn. 1803]. The type-species of *Gerris* Fabricius, 1794, however, had been designated as *Gerris lacustris* Fabricius (=*Cimex lacustris* Linnaeus, 1758) by Latreille in 1810, thereby permanently associating

the name *Gerris* with the well-known pond-skaters. *Leptocorisa* Latreille, 1829, was virtually, but not technically, a new name for the taxon *Gerris* Fabricius, 1803, not Fabricius 1794, and became available for that taxon.

4. In 1830 Guérin (*Voy. Coq.*, Zool. 2 : 178) used *Leptocorisa* Latreille for a new species from " Bourou Is., Iles Moluques ", which he called *Leptocorisa flavida* Guérin. This is the first included species in the genus and is the type-species by subsequent monotypy. Unfortunately *L. flavida* Guérin is a synonym of *L. varicornis* (Fabricius 1803) according to Stål, 1873 (*Enum. Hemipt.* 3 : 86) but *varicornis* F., 1803, is a junior synonym of *acuta* (Thunberg, 1783) which is now transferred to the genus *Rhabdocoris* Kolenati, 1845. Kolenati's name therefore becomes a synonym of *Leptocorisa* Latreille 1829, leaving the taxon *Leptocorisa* (Latreille) Laporte, 1833, without a name. Since *Stenocoris* Burmeister 1839 and *Erbula* Stål 1873 still remain as subgenera within this taxon, one of them takes seniority for the genus which will become *Stenocoris* Burmeister 1839, while the old taxon *Leptocorisa* Laporte, 1833, nec. Latreille, 1829, type-species *filiformis* Fabricius, will take the new name *Oryzocoris* Ahmad gen. nov. (in press.). The type-species of *Stenocoris* Burmeister 1839 by monotypy (Handb. Ent. 2 : 1010) is *Cimex tipuloides* De Geer, 1773.

5. The first real description of *Leptocorisa* Latreille, 1829, was by Laporte (1833) who included a single new species *Leptocorisa linearis*, which is a subjective synonym of *Cimex filiformis* Fabricius, 1775, one of the species included by Fabricius in his genus *Gerris* 1803, not 1794. The name *Leptocorisa* Latreille has been used by Guérin (1830), Laporte (1833), Stål (1873), Lethierry & Severin (1894), Distant (1901), Breddin (1909), Oshanin (1912), Van Duzee (1914), China (1924), Miller (1956) and Southwood and Leston (1959).

6. Van Duzee (1914) wrongly regarded *Leptocorisa* Latreille, 1829, as a valid new name for *Gerris* Fabricius, 1803, not 1794, and consequently believed that it should take the same type-species. This he believed was *Gerris varicornis* Fabricius, 1803.

7. There is no doubt whatsoever that *Leptocorixa* Berthold, 1827, is valid and antedates *Leptocorisa* Latreille, 1829, for the same taxon. It would, however, be against majority usage and would be definitely confusing to use the valid name *Leptocorixa* since this name with its termination – *corixa* is so similar to that of many genera in the waterbug family CORIXIDAE.

8. The International Commission is therefore requested:

(1) to use its plenary powers to suppress the generic name *Leptocorixa* Berthold, 1827, for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the following generic names on the Official List of Generic Names in Zoology:

  (a) *Leptocorisa* Latreille, 1829 (gender : feminine), type-species, by subsequent monotypy, *Leptocorisa flavida* Guérin, 1830;

  (b) *Stenocoris* Burmeister, 1838 (gender : masculine), type-species, by monotypy, *Cimex tipuloides* De Geer, 1773;

(3) to place the following specific names on the Official List of Specific Names in Zoology:

(a) *acuta* Thunberg, 1783, (oldest name for *flavida* Guérin, 1830) as published in the binomen *Cimex acuta*;

(b) *tipuloides* De Geer, 1773, as published in the binomen *Cimex tipuloides* (type-species of *Stenocoris* Burmeister, 1839);

(4) to place the family-group name LEPTOCORISINI (correction of LEPTOCORISARIA Stål, 1877 (type-genus *Leptocorisa* Latreille, 1829) on the Official List of Family-Group Names in Zoology;

(5) to place the following family-group names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:

(a) LEPTOCORISARIA Stål, 1877 (type-genus *Leptocorisa* Latreille, 1829), an invalid original spelling for LEPTOCORISINAE;

(b) LEPTOCORIXARIA Bergroth, 1913 (type-genus *Leptocorixa* Berthold, 1827), invalid because the name of the type-genus has been suppressed under the plenary powers;

(6) to place the generic name *Leptocorixa* Berthold, 1827 (suppressed under the plenary powers in (1) above) on the Official Index of Rejected and Invalid Generic Names in Zoology.

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ANOLIS DAUDIN, 1803 (REPTILIA; LACERTILIA): REQUEST FOR THE DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS

Z.N.(S.) 1603

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Although the genus *Anolis* Daudin, 1803, is the largest of all American lizards, containing some 250–300 species, its type was apparently never dealt with until Stejneger stated, in 1904 (*Ann. Rept. U.S. Nat. Museum*, for 1902: 625) that the type is " *A. bullaris*," without mention of usage of that specific name by any author. This name is certainly available for selection as type, since Daudin (1803, *Histoire naturelle, générale et particulière des reptiles* **4** : 50–140) included the following species in his new genus *Anolis*: *bimaculatus* (from *Lacerta bimaculata* Sparrman, 1784), with a variety of *bimaculatus* not assigned a Latin name by Daudin, but explicitly based on *Lacerta principalis* Linnaeus, 1758; *carbonarius*, a new species; *lineatus*, a new species; *bullaris* (from *Lacerta bullaris* Linnaeus, but with references to several other names); *punctatus* (a new species); *podagricus* (a new species); *auratus* (a new species); and *sputator* (from *Lacerta sputator* Sparrman, 1784).

Although Stejneger's (*loc. cit.*) selection of type by conventional nomenclatural procedure must be accepted, by the " first reviser " custom (the 1961 Code does not explicitly state that the first selection takes precedence over any other) four years later Brown (1908, *Proc. Acad. Nat. Sci. Philadelphia* **59** : 116) rejected Stejneger's choice and substituted *Anolis carolinensis* Dumeril and Bibron, 1837. The reasoning behind this astonishing conclusion, in Brown's words (*loc. cit.*) is as follows: " According to Dr. Stejneger (*Herp. of Porto Rico*, 625, 1904) the type of *Anolis* is *A. bullaris*. But the pertinency of this name to any known species is far from certain. *Lacerta bullaris* Linn. rests on Catesby's plate 55, " *Lacerta viridis jamaicensis* ", whose recognition is chiefly an act of faith. No other of the early authors added exactness to its use. *A. bullaris* Daud. (*l.c.*, p. 69) is based on *L. bullaris* Linn., adding thereto Catesby's plate 65, " *Lacerta viridis carolinensis* ", and another unassignable name, *L. strumosa*. Dumeril and Bibron (Vol. 4, pp. 117, 120) divide *A. bullaris* Daud. into *A. chloro-cyanus* and *A. carolinensis*, considering the first of these species to be questionably *L. bullaris* Linn. As *A. carolinensis* D. and B. rests on a firm basis on Catesby, it would seem that this name should not be disturbed, and that *bullaris* of authors should be permitted to remain in obscurity."

Stejneger was seemingly persuaded by Brown's case, for in 1917 he accepted *carolinensis* as type of the genus (Stejneger and Barbour, *Check List N.A. Amphs. Repts.* : 44) with the devious notation " type: *bullaris-carolinensis* ". The same wording is used in each of the subsequent five editions of the checklist, ending with the 1953 edition by K. P. Schmidt. Smith and Taylor continued the error in their 1950 checklist of Mexican lizards (*Bull. U.S. Nat. Mus.* **199** :56).

Stuart (1963, *Misc. Publ. Mus. Zool. Univ. Michigan* **122** : 59–60) accepted the same type designation but admitted its incomprehensibility. He quoted a letter from K. P. Schmidt, written in 1954, revealing that Schmidt likewise was puzzled by the Stejnegerian conclusion but did not wish to arouse a sleeping dog.

Our own work demands attention to the problem which surely requires something less than a " Ph.D. thesis for a nomenclaturist " (Schmidt, in Stuart, *loc. cit.*) for arrival at a definitive disposition acceptable to all students involved.

Despite the appeal of the simplicity of Brown's conclusion, *Anolis carolinensis* (actually Voigt, 1832, *in* Cuvier's *Das Thierreich* **2** : 71, not Dumeril and Bibron, 1837, as cited by Brown, *loc. cit.*) was not among the nominal species given by Daudin, 1803, in the original description of the genus, and according to Article 69 (a) (i) cannot be considered as type at least by the automatic provisions of the 1961 Code. Certainly the one valid selection, by Stejneger of *Lacerta bullaris* Linnaeus, is much less appealing, since the specific name *bullaris* (a) has not been used as a valid name for over a hundred and fifty years and therefore is, according to the 1961 Code (Article 23b), a *nomen oblitum* not available for nomenclatural usage; and (b) is of uncertain identity. Its failure to be used can be attributed, of course, to the impossibility of reasonably certain allocation.

The systematics of the genus *Anolis* would be best served by arbitrary designation of *carolinensis* as type, despite the absence of that name from Daudin's list of species. It has, in effect, been considered as type of *Anolis* for over 50 years, although incorrectly. The name has not, to our knowledge, been used as a type for any other nominal genus. Accordingly we here petition the Commission

(1) to use its plenary powers to set aside all designations of type-species for the nominal genus *Anolis* Daudin, 1803, made prior to the Ruling now requested and, having done so, to designate *Anolis carolinensis* Voigt, 1832, to be the type-species of that genus;

(2) to place the generic name *Anolis* Daudin, 1803 (based on a colloquial West Indian name for these lizards; masculine gender), type-species, by designation under the plenary powers in (1) above, *Anolis carolinensis* Voigt, 1832, on the Official List of Generic Names in Zoology;

(3) to place the specific name *carolinensis* Voigt, 1832, as published in the binomen *Anolis carolinensis*, no types in existence (type-species of *Anolis* Daudin, 1803) on the Official List of Specific Names in Zoology.

NAIADITES ELONGATUS DAWSON, 1860 (LAMELLIBRANCHIA): PROPOSED SUPPRESSION UNDER THE PLENARY POWERS AS A *NOMEN DUBIUM* Z.N.(S.) 1604

By M. J. Rogers (21, *Canynge Square*, *Clifton*, *Bristol* 8, *England*)

The purpose of the present application is to request the suppression of the binomen *Naiadites elongatus* Dawson. The case is one in which the original figure and description are inadequate; the type material is indeterminate and secondary types belong to several genera. Accurate definition of the species is therefore impossible. The facts of the case are stated below.

2. J. W. Dawson (1860, *Supplement to* " *Acadian Geology* ": 44) first described his species *Naiadites elongata* (*sic*) as follows: " Smaller than the preceding [*Naiadites carbonarius*], and more elongated laterally; the beaks obtuse and more anterior [but see 6 below]; the hinge-line nearly straight and less than half the length; ventral margin slightly compressed; length about half an inch; common at the Joggins and Sydney [Nova Scotia], in the middle coal-measures. See Fig. 23, in paper above cited." [Dawson, 1854, *Quart. J. Geol. Soc. London* **10** : 39]. The shell Dawson figured in 1854 as *Modiola* cannot now be identified, but in 1894 (*Canadian Record of Science* **5** : 125) he stated that it belongs to his new species *Naiadites mytiloides*.

3. In 1863, J. W. Salter (*Quart. J. Geol. Soc. London* **19** : 79, fig. 1) figured as *Anthracomya elongta*, at natural size and also much enlarged, a right valve sent to him by Dawson from the Coal Measures of Nova Scotia. According to a label in the British Museum (Natural History), the shell figured by Salter lies on a piece of shale from Sydney, Cape Breton Island, Nova Scotia, L. 14992, but no specimen on the shale closely resembles Salter's figure. The only fossil which Salter's figure might be intended to represent is now referred to *Anthraconauta cf. phillipsii* (Williamson, 1836).

4. Dawson, in 1868 (" *Acadian Geology* " (ed. 2) : 204), repeated his 1860 description using the binomen *Naiadites* (*Anthracomya*) *elongata*, adding that the species might attain a length of one inch. A figure (43) was added of a right valve, at natural size and also much enlarged. These figures resemble Salter's, but show a different interpretation of the posterodorsal margin. Dawson's figures do not closely resemble any specimen in the Redpath Museum, Montreal, nor in the British Museum (Natural History), although it may have been intended to represent B.M. L. 14992 (see 3 above).

5. In 1894 (*Canadian Record of Science* **5** : 126–7, figs. 6–8) Dawson transferred his species *elongata* to the genus *Anthracomya*, redefining it as follows: " Obliquely ovate form, the length in typical specimens being about double the breadth. The umbones are somewhat elevated and near the narrower anterior end. The straight hinge-line is somewhat oblique and a little more than one-third of the length of the shell. The front margin is slightly sinuated, the posterior margin regularly rounded. The surface is smooth and shining, with concentric lines of growth. This is by much the most abundant species, and is

very varied in form and size. When aged, it is more elongated than when immature, and the hinge-line relatively shorter and less elevated." The localities given were South Joggins, Pictou, Sydney, Glace Bay, Mabou, Riversdale, Swan Creek and Parrsboro, horizons at the last three localities being low in the system, and the fossils being small in size. Figure 6 which accompanied this description is the same as the 1868 figure (see 4 above). Figure 8 inaccurately represents Redpath Museum specimen No. 2,1166, a whitened fossil labelled plesiotype from the Coal Formation of the Middle Carboniferous at Joggins. A Note on the reverse of the mounting card stated that it is the original of " C.R.S. p. 126, fig. 8 " and the spirorbid on the upper posterior margin of the specimen is shown in Dawson's figure. This shell is now referred to *Naiadites longus* Dawson, 1894. Figure 7 is probably a rather inaccurate representation of Redpath Museum specimen No. 2,1167. This shell is whitened and the label in the handwriting of Dawson's assistant, Ardley, states that it is a co-type of *Anthracomya elongata* (Dawson), from Sydney, Cape Breton Island, Nova Scotia. This specimen is now referred to *Anthraconauta phillipsii* (Williamson).

6. Dawson sent some of his Nova Scotian Upper Carboniferous lamellibranch material to Wheelton Hind for comment. Accordingly, in 1894 (*Quart. J. Geol. Soc. London* **50** : 440) Hind said: " It is very difficult to be absolutely sure as to the generic position of the shells figured as *Anthracomya elongata*, as there are no specimens showing the hinge-line, ligament, or muscle-scars, but from the shape they possibly belong to this group. There is nothing to add to the original description, but I think that the sentence describing the position of the umbones is misleading. It says, ' the beaks obtuse and more anterior ', but it is difficult to see what is the meaning of the word more.[1]

" There appear to have been two forms of varieties of this shell, one more elongate and comparatively narrower, the other short and as broad as long."

Hind gave five illustrations of the species in this paper, one (Pl. XX, fig. 11a) representing Redpath Museum specimen No. 2,1164b from Mabou which is now referred to *Anthraconauta cf. phillipsii* (Williamson). The other four figures (Pl. XX, figs. 7–10) represent fossils on a piece of silstone, British Museum (Natural History) No. L. 47795, which is from South Joggins, according to the Museum label; but another label, stuck on the matrix, gives the locality as Pictou. Numbers 7 and 9 on L. 47795 are now referred to *Curvirimula* (?) *ovalis* (Dawson, 1860) (L. 47795.7 is identified from Hind's figure, since the fossil is now lost); L. 47795.8 is referred to *Naiadites* sp. and L. 47795.10 is identified as *Curvirimula* (?) *corvosa* sp. nov. (Rogers, M. S.).

7. Morningstar (1922, " Pottsville Fauna of Ohio ", *Bull. Geol. Surv. Ohio* **25** : 220–1) described shells from the Lower Pottsville as *Naiadites elongatus* Dawson. Three figures were given (Pl. XII, figs. 7–9). The first two are of flattened shells now referred to *Anthraconauta* cf. *phillipsii* (Williamson) (Ohio State University Geological Museum Nos. 15251, 15250); the third (OSUGM No. 15252) is now referred to *Naiadites* cf. *productus* (Brown, 1849).

8. The binomen *Naiadites elongatus* Hind, 1883 was used extensively in the British literature until Trueman and Weir (1956, Pal. Soc. Monograph, Pt. IX,

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[1] A clerical error for " less ". –J. W. D., May, 1894.

p. 254) pointed out that it was a junior secondary homonym of *Naiadites elongatus* Dawson, 1860, and they proposed a new name for Hind's species. Hind did not consider that his species was morphically similar to Dawson's.

9. Summarizing: from (2) above it is seen that the original description of *Naiadites elongatus* Dawson, 1860 was inadequate and referred to a figure of a fossil which was later (see 2) transferred by Dawson himself to a different species. This fossil cannot now be recognized in any Museum collections. Subsequently (1868), on repetition of the original description, a figure was added which may have been intended to represent a shell now considered to be referable (with cautionary " cf. ") to the species *Anthraconauta phillipsii* (Williamson, 1836). (See 3 and 4 above.) Later (1894), Dawson illustrated a revised description with figures of shells now referred to the genera *Anthraconauta* and *Naiadites* (see 5). These facts tend to support Hind's observation that two varieties were suggested, and Dawson's comment that his species is very varied in form (see 5 and 6). It is the present author's contention that the species *Naiadites elongatus* Dawson, 1860 is not now identifiable.

10. The binomen *Naiadites elongatus* Dawson has been used occasionally by palaeontologists since Dawson's time, but since it is not now possible to define the species, I ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress the specific name *elongatus* Dawson, 1860, as published in the binomen *Naiadites elongatus* for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the specific name *elongatus* Dawson, 1860, as published in the binomen *Naiadites elongatus* on the Official List of Rejected and Invalid Names in Zoology.

SERPULA LINNAEUS, 1758 (ANNELIDA, POLYCHAETA): PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS AND RELEVANT PROPOSALS. Z.N.(S.) 1606

By David Heppell (*British Museum (Natural History), London*)

Linnaeus, 1758, established the genus *Serpula* to include fourteen species of " Vermes Testacea ", which have been referred subsequently to various groups, as follows:—

Protozoa, Foraminifera:
  S. seminulum;
Annelida, Polychaeta:
  S. spirillum, *S. spirorbis*, *S. triquetra*, *S. intricata*, *S. contortuplicata*, *S. penicillus*;
Mollusca, Gastropoda:
  S. glomerata, *S. lumbricalis*, *S. arenaria*, *S. anguina*;
Mollusca, Pelecypoda:
  S. penis;
Rotifera:
  S. ringens;
Incertae sedis:
  S. planorbis.

This list is included merely as an illustration of the heterogeneous nature of Linnaeus's genus. It does not imply that there is general agreement on the identity of all the included species, even at the phylum level. The absence of authentic type-specimens in the Linnean collection accounts largely for the existing confusion.

2. In 1767, Linnaeus removed two of the original species (*penicillus*, *ringens*) to a new genus (*Sabella*), and four new species were added (*filograna*, *granulata*, *polythalamia*, *vermicularis*). Of these, *S. polythalamia* is a pelecypod mollusc, while the other three species are polychaetes.

3. *Serpula* Linnaeus, 1758, is in present use as a genus of sedentary polychaetes, and is the type-genus of the family SERPULIDAE Lamarck, 1818.* The type-species has been accepted by marine biologists as *Serpula vermicularis* Linnaeus, 1767, though that is not an originally included nominal species.

4. Of those original species now referred to the Polychaeta, only *S. intricata* is still included by Hartman, 1959, within the modern concept of *Serpula*, and the specific identity of that species is said to be " confused ". *S. contortuplicata* is tentatively equated with *Hydroides norvegica* Gunnerus, 1768, by the same author.

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* See Latreille, 1820. *Mém. Mus. Hist. nat. Paris* **6** : 93-115. Lamarck based his arrangement of the Annelida section of his *Histoire Naturelle des Animaux sans Vertèbres* on two unpublished works presented by Savigny in 1817 at the Académie Royale des Sciences, Paris. This explains the ascription by Hartman, 1951 (*Literature of the Polychaetous Annelids* **1** : 222) of that part of the *Histoire* to Savigny.

5. (1) Montfort, 1810, designated *S. contortuplicata* Lamarck, 1801, as type-species of his genus *Serpulus*, an emendation of *Serpula*. According to Article 67 (i) (ii) of the International Code, an emendation of a generic name, whether justified or unjustified, is an objective synonym of the original name and therefore has the same type-species. From Lamarck's synonymy, however, his *S. contortuplicata* is seen to include *S. glomerata* Linnaeus, 1758, which is a gastropod mollusc, and is therefore not synonymous with *S. contortuplicata* Linnaeus, 1758;

(2) Fleming, 1818, restricted *Serpula* to those species whose shells "adhere to other bodies, and are tubular, entire, and flexuous, with a simple mouth as represented by the S. contortuplicata of Linnaeus";

(3) *Serpula contortuplicata* Linnaeus was designated as type-species by Chenu & Desmarest, 1859,* but their species of that name was probably *S. contortuplicata* Cuvier, 1817, *non* Linnaeus, 1758, which is synonymous with *S. vermicularis* Linnaeus, 1767, [see paragraph 6 (5) below]. *S. vermicularis* Cuvier, 1817, is *S. vermicularis* Müller, 1789, *non* Linnaeus, 1767, and is not considered congeneric with Linnaeus's species of that name by modern workers;

(4) Hartman, 1959, cited *S. vermicularis* Linnaeus, 1767, as type-species. Although this designation was invalid, since that species was not one originally included in the genus, it was the only designation possible in accordance with nomenclatural stability. The main purpose of this present application is to ratify Hartman's action.

6. (1) Ellis, 1755, figured a specimen corresponding to the modern concept of *S. vermicularis* (*Nat. Hist. Corallines*, pl. 38, fig. 2). This figure is associated by Ellis with the name *Tubus vermicularis* and a reference to "Linnaeus *Syst. Nat.*, p. 75" (i.e. ed. 6, 1748, where *Tubus vermicularis* is listed as the third species of *Dentalium*);

(2) Linnaeus, 1758, gave a reference to pl. 38, fig. 2 of Ellis, 1755, under the generic diagnosis of *Serpula*, but did not associate it with any specific name;

(3) Bergius, 1765, cited the same figure with the diagnosis of his *Teredo tubusvermicularis*;†

(4) Ellis's figure was the sole figure cited with the diagnosis of *Serpula vermicularis* Linnaeus, 1767. Thus this specific name is a junior objective synonym of *Teredo tubusvermicularis* Bergius, 1765;

(5) Cuvier, 1817, also cited pl. 38, fig. 2 of Ellis, but in the diagnosis of his *Serpula contortuplicata*. Cuvier's interpretation of *S. contortuplicata* and

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* The designation is made in this manner:— "... 1° SERPULES (*Serpula*, Linné), dont le type est le *Penicillum marinum*, Seba, ou la *Terebella serpula*, Abildg., et qui comprend les groupes des *Galeolaria* et *Vermilaria*, Lam.; *Serpula*, *Cymospira*, *Spimella*, Blainv.; *Helena*, Cast. Ce sont des Annélides nombreuses, propres à toutes les côtes, qui *vivent dans des tubes calcaires, contournés sur eux mêmes*, et qui ont l'*extrémité antérieure du corps ornée d'une couronne d'appendices analogues à de beaux panaches disposés en entonnoir*: comme type nous ne nommerons que la *S. contortuplicata*, Linné, qui se trouve souvent dans notre Océan attachée aux coquilles."

† The original form is *Teredo* (*Tubus vermicularis*); since, in all other instances in Bergius's paper, the name in parentheses is the specific name, it may be assumed that this also applies to the present species, rather than that *Tubus* Bergius has subgeneric status (i.e. analagous to Linnaeus' *Strombus Pes pelecani*, *Mytilus Crista galli*, etc.).

S. vermicularis [see paragraph 5 (3) above] has been followed by some other French authors.

7. In the absence of an authentic specimen of *S. vermicularis* in the Linnean collection, the only type is the specimen figured by Ellis, 1755, as fig. 2 on pl. 38. The type-locality, " O. Europaeo ", is here restricted to the coast of Sussex, England, from which locality Ellis obtained his specimen. Although Hanley, 1855, stated, " . . . the type, which is still preserved in the cabinet of Linnaeus, alone of its contents answers correctly to the definition ", there is no evidence for that specimen being authentically Linnean and it may well be, as with a number of other specimens in the Linnean shell collection, a later addition.

8. Since the strict application of the Code invalidates the accepted type-species of *Serpula*, which has, moreover, been shown above to be a junior objective synonym, three alternative procedures are possible:—

(1) to accept a valid designation of one of the originally included species as type-species of *Serpula* Linnaeus, 1758. It will be understood from paragraph 4 above that this would considerably upset established nomenclature;

(2) to suppress *Serpula* Linnaeus, 1758, in favour of *Serpula* Linnaeus, 1767. This would admit the possibility of a prior generic taxon having been established between these two dates which, if discovered at a later date, would require further application to the Commission for its suppression;

(3) to set aside all type designations for *Serpula* Linnaeus, 1758, made prior to the Ruling now requested and then to designate *Serpula vermicularis* Linnaeus, 1767, as type-species of *Serpula* Linnaeus, 1758, by the use of the plenary powers and, at the same time, to suppress its senior synonym *Teredo tubusvermicularis* Bergius, 1765.

I believe alternative (3) is the one most acceptable for the maintenance of established zoological nomenclature.

9. Referring to what is stated above, I ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers:
   (i) to set aside all designations of type-species for the nominal genus *Serpula* Linnaeus, 1758, made prior to the Ruling now requested and, having done so, to designate *Serpula vermicularis* Linnaeus, 1767, to be the type-species of that genus;
   (ii) to suppress the specific name *tubusvermicularis* Bergius, 1765, as published in the binomen *Teredo tubusvermicularis* for the purposes of the Law of Priority but not for those of the Law of Homonymy;

(2) to place the family-group name SERPULIDAE (*nom. correct.* Johnston, 1865, *pro* SERPULÉES) Lamarck, 1818 (type-genus: *Serpula* Linnaeus, 1758) on the Official List of Family-Group Names in Zoology;

(3) to place the generic name *Serpula* Linnaeus, 1758 (gender : feminine) type-species by designation under the plenary powers in (1) (i) above: *Serpula vermicularis* Linnaeus, 1767, on the Official List of Generic Names in Zoology;

(4) to place the specific name *vermicularis* Linnaeus, 1767, as published in the binomen *Serpula vermicularis* (type-species of *Serpula* Linnaeus, 1758) on the Official List of Specific Names in Zoology;

(5) to place the specific name *tubusvermicularis* Bergius, 1765, as published in the binomen *Teredo tubusvermicularis* (suppressed under the plenary powers in (1) (ii) above) on the Official Index of Rejected and Invalid Specific Names in Zoology.

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COENONYMPHA OCHRACEA EDWARDS, 1861 (INSECTA, LEPIDOPTERA): PROPOSED DESIGNATION OF A NEOTYPE UNDER THE PLENARY POWERS Z.N.(S.) 1607

By F. Martin Brown* (*Research Associate, Carnegie Museum, Pittsburgh, Pennsylvania. Research Associate, American Museum of Natural History, New York, U.S.A.*)

1. William Henry Edwards in 1861 described a butterfly, to which he applied the name *Coenonympha ochracea*, from a mixed series of specimens from " Lake Winnipeg, California, Kansas ". He did not designate a type specimen nor did he mark in any special way the specimens before him at the time he wrote the original description of *ochracea*. At a later date, circa 1891, he marked at least one specimen " type ", meaning typical.

2. Careful search of Edward's collection housed at the Carnegie Museum, Pittsburgh, Pennsylvania, discovered a single recognizable syntype of the name *ochracea*. This is from " Lake Winnipeg ". The syntypes from " California " and from " Kansas " cannot be recognized, or are lost. Davenport (1941 : 269) cast doubt upon the validity of the " Lake Winnipeg " syntype. It does not compare favourably with the original description.

3. Throughout his long life as an active rhopalocerist, Edwards consistently applied the name *ochracea* to the Rocky Mountain strain of the *Coenonympha tullia* complex, represented by the original " Kansas " syntype. This has been the practice of entomologists in general. Two recent attempts have been made to change this practice. Chermock and Chermock (1938) attempted to restrict the name *ochracea* to the " Lake Winnipeg " syntype and used *brenda* Edwards (1869) for the Rocky Mountain strain. Burdick (1956) restricted the use of *ochracea* Edwards to the strains found west of the Rocky Mountains and renamed the Rocky Mountain strains *phantasma*. Both of these actions disturb the century-long stability of the use of the name *ochracea* Edwards. Neither of these actions properly fixed a type for the name *ochracea*, nor did Davenport (*l.c.*).

4. The original series of syntypes represented three currently recognized taxa. The lost " California " syntype(s) hailed from the region west of the mountains in that state and is, on the basis of the original description, assignable, to the only California *Coenonympha* known from that region, currently recognized as *Coenonympha california* Doubleday (1851), and it probably represented the summer form *galactinus* Boisduval (1852). The extant " Lake Winnipeg " syntype represents the taxon *Coenonympha inornata* Edwards (1861) (which has line priority over *ochracea* Edwards) in its subspecific form *benjamini* McDunnough (1928). Thus two of the three taxa combined by Edwards under the name *ochracea* have been segregated. This leaves the lost " Kansas " syntype(s) standing for the name *ochracea*. (Note: at the time the " Kansas "

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* This study was supported in part by the National Science Foundation grant GB-194, a study of the types of names proposed by W. H. Edwards.

syntypes were collected Kansas included much of the present state of Colorado lying east of the Continental Divide.)

5. If no syntypes of *ochracea* Edwards existed today there would be no problem about designating a neotype for the name. The existence of one syntype from " Lake Winnipeg " clouds the matter. It is believed that stability of nomenclature will be best served by evoking the plenary powers of the Commission to recognize a neotype for the name *ochracea* Edwards (1861). I propose that this neotype be a male specimen which fulfills the original description and was captured in the region from which Edwards received his syntype labelled " Kansas ", to wit, Jefferson County, Colorado. Such a specimen, bearing a label reading " Turkey Creek, Jefferson, Colo., 8,000 ft., 9.vii.56 ", tentatively has been designated the neotype of *ochracea* Edwards, pending action of the Commission. The specimen will be deposited with the Edwards Collection at the Carnegie Museum, Pittsburgh, Pennsylvania.

6. A more detailed study supporting the requested action has been accepted for publication in the October 1963 *Entomological News*. A manuscript copy of this article is filed with the Acting Secretary of the Commission.

The International Commission is therefore asked:

(1) to use its plenary powers to validate the neotype designated for *Coenonympha ochracea* Edwards, 1861, in paragraph 5 above.

(2) to place the specific name *ochracea* Edwards, 1861, as published in the binomen *Coenonympha ochracea*, on the Official List of Specific Names in Zoology.

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CORRIGENDA

page 43. Line 5: omit " not "

page 62. Line 5 from bottom: substitute " *zyxa* " for " *zy£a* "

page 62. Line 3 from bottom: substitute " first " for " hrst "

page 62. Line 2 from bottom: substitute " *lelykyia* " for " *leiykyia* "

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